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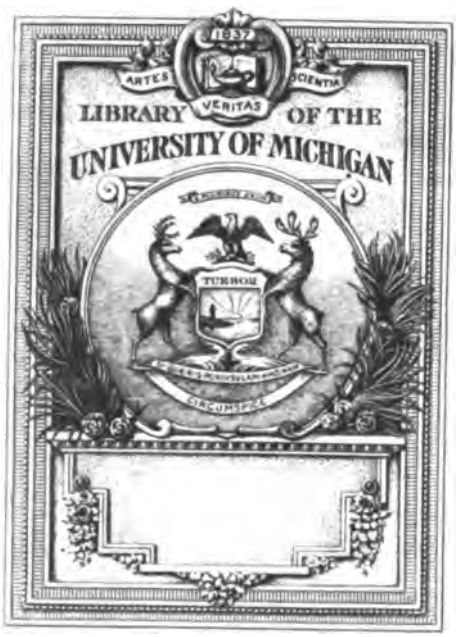
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SEVENTY-FOURTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION

OF THE

STATE OF MICHIGAN

WITH

ACCOMPANYING DOCUMENTS

FOR

THE YEAR 1910-11

BY AUTHORITY

LANSING, MICHIGAN
WYNKOOP HALLENBECK CRAWFORD CO., STATE PRINTERS
1911

LETTER OF TRANSMITTAL

STATE OF MICHIGAN,
DEPARTMENT OF PUBLIC INSTRUCTION,
Lansing, June 30, 1911.

To His Excellency, CHASE S. OSBORN,
Governor of the State of Michigan:

SIR—In compliance with the provisions of law, I have the honor herewith to transmit through you to the Legislature, the annual report of the Superintendent of Public Instruction, together with the accompanying documents for the year ending June 30, 1911.

Very respectfully,
Your obedient servant,

L. L. Wright

Superintendent of Public Instruction.

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STATE OF MICHIGAN

DEPARTMENT OF PUBLIC INSTRUCTION

1911.

LUTHER L. WRIGHT	State Superintendent.
FRED L. KEELER	Deputy Superintendent.
ETTA H. GARDINE	Chief Clerk.
GRACE B. WALLACE	Chief Statistician.
JEAN G. GOW	Assistant Statistician.
J. W. HAZARD	Assistant Statistician.
TENA M. McDONALD	Assistant Statistician.
FLORENCE HIGGINS	Assistant Statistician.
MANIE B. LARSON	Librarian.
NAN LAWLER	Stenographer.
HAZEL B. WILBER	Stenographer.
IDA M. HUSTON	Editor.
SAMUEL F. POLOZKER	Shipping Clerk.
JOHN G. BOHNETT	Janitor and Messenger.

STATE BOARD OF EDUCATION

1911.

DEXTER M. FERRY, JR.	President.
W. A. COTTON	Vice-president.
WM. J. McKONE	Treasurer.
LUTHER L. WRIGHT	Secretary.

SUPERINTENDENTS OF PUBLIC INSTRUCTION

APPOINTED.	
JOHN D. PIERCE	1836–1841
FRANKLIN SAWYER, JR.	1841–1843
OLIVER C. COMSTOCK	1843–1845
IRA MAYHEW	1845–1849
FRANCIS W. SHEARMAN	1849–1851
ELECTED.	
FRANCIS W. SHEARMAN	1851–1855
IRA MAYHEW	1855–1859
JOHN M. GREGORY	1859–1865
ORAMEL HOSFORD	1865–1873
DANIEL B. BRIGGS	1873–1877
HORACE S. TARBELL	1877–1878
CORNELIUS A. GOWER	1878–1881
VARNUM B. COCHRAN	1881–1883
HERSCHEL R. GASS	1883–1885
THEODORE NELSON	1885–1887
JOSEPH EASTABROOK	1887–1891
FERRIS S. FITCH	1891–1893
HENRY R. PATTENGILL	1893–1897
JASON E. HAMMOND	1897–1901
DELOS FALL	1901–1905
PATRICK H. KELLEY	1905–1907
LUTHER L. WRIGHT	1907——

DEPUTY SUPERINTENDENTS OF PUBLIC INSTRUCTION

CORTLAND B. STEBBINS	1859–1878	HUGH BROWN	1891–1893
WILLIAM L. SMITH	1878–1883	JASON E. HAMMOND	1893–1897
DAVID PARSONS	1883–1885	DANIEL E. McCLURE	1897–1901
WILLIAM L. SMITH	1885–1885	†WALTER H. FRENCH	1901–1908
W. F. CLARKE *	1885–1891	F. L. KEELER	1908——

*In place of W. L. Smith, resigned.
†Resigned July 1, 1908.

SUPERINTENDENT'S REPORT

This is the seventy-fourth annual report of the Superintendent of Public Instruction, and is a record of the work of public education in Michigan for the year ending June 30, 1911. The statistical tables herein given cover the school year, 1909-1910.

I am pleased to record that a steady growth and improvement in school work have been manifest during the past year. With this improvement increased demands have been made upon those connected with the administration of the various departments of the system. I am grateful for the hearty co-operation of county, city and district officials generally, without which this Department could do little of value in the educational interests of the state.

But few marked changes in policy and operation have been made during the past year. Several laws enacted by the legislature of 1911 should increase the effectiveness of the educational system of the state.

A bill providing for the submitting to the people at the spring election of 1911 of an amendment to Section 9 of Article XI of the state constitution was passed by the legislature of 1911. The vote of the people carried the amendment by a large majority. Section 9, Article XI, reads in part as follows: "The legislature shall continue a system of primary schools, whereby every school district in the state shall provide for the education of its pupils without charge for tuition. If any school district shall neglect to maintain a school within its borders as prescribed by law for at least five months in each year or to provide for the education of its pupils in another district or districts for an equal period, it shall be deprived for the ensuing year of its proportion of the primary school interest fund." And the amendment to this section is as follows: "If any school district shall, on the second Monday in July of any year, have on hand a sufficient amount of money in the primary school interest fund to pay its teachers for the next ensuing two years as determined from the payroll of said district for the last school year, and in case of a primary district all tuition for the next two ensuing years, based upon the then enrollment in the seventh and eighth grades in said school district, the children in said district shall not be counted in making the next apportionment of primary school money by the Superintendent of Public Instruction; nor shall such children be counted in making such apportionment until the amount of money in the primary school interest fund in said district shall be insufficient to pay teachers' wages or tuition as herein set forth for the next ensuing two years."

Apportionment of Primary Money.

The annual apportionment to the schools of the state amounts to about

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Apportionment of Primary Money.

The annual apportionment to the schools of the state amounts to about

five million dollars. The apportionment for 1910 was $5,590,772.60, or $7.40 per capita. Previous to this time a large number of school districts have received more primary money than they used. Many weaker districts because of a small school population, received but a small amount and were obliged to levy a heavy school tax. Under the new system of distribution about eight hundred districts will be excluded from participating in the next apportionment. In one county sixty-two districts will receive no share of the apportionment; thirty-one counties have ten or more districts of this class. One district has enough primary money on hand to pay teachers' wages for twenty-two years; another for twelve years; another for ten years; and many for more than five years. The new method will increase the per capita apportionment to the districts benefited about eight per cent. The excluded districts will again participate when the amount of primary money on hand has been reduced below a two years' sufficiency. The method will insure the active use and expenditure of all the primary money distributed.

Free Tuition Law.

An act was passed amending the free tuition law. The failure to define a high school and an eighth grade graduate has previously prevented the perfect operation of the law. The amendment defines a high school as a graded district maintaining twelve grades of work with at least two teachers devoting their entire teaching time to the ninth, tenth, eleventh and twelfth grades. It also provides that a child must hold a county eighth grade diploma in order to have his tuition paid, or have passed the eighth grade in a graded district, or have had his tuition paid last year under the free tuition law. Thus provision is made for an eighth grade examination by the Superintendent of Public Instruction which before has been unauthorized. The law is one which very directly benefits the boys and girls of rural communities. The indications are that the number of these pupils to receive a high school education is to be very greatly increased.

Physical Training.

Another act of the legislature provides that physical training shall be included in the branches to be regularly taught in the public schools in city school districts having a population of more than 10,000 and in state normal schools, subject to such rules and regulations as the Superintendent of Public Instruction may prescribe. It will be impossible during the first year to institute an ideal course; however, training of value can be given the children and a higher standard attained the following year. The dominating idea in this work should be to conserve the health of the pupil and to develop normal physique rather than train athletes

Teachers' Institute.

The plan of institutes, as carried out during the past year, has been of unusual value to the teachers of the state and to all interested in educational work. Aside from the long term institutes held in connection with the summer session of the four state normals, and the institutes of a few days' duration in various counties, leading educators from other states have visited the counties. During the winter teachers were given an opportunity to hear Dr. A. E. Winship, editor of the New England Journal of Education; President E. B. Bryan of Colgate University, Hamilton, N. Y.; Hon. F. G. Blair, State Superintendent of Illinois; and Hon. Leonard

P. Ayres of the Russell Sage Foundation, New York City. An itinerary of several weeks' duration was planned for each of these educators whereby morning, afternoon and evening lectures were given in each locality visited. The effect has been such as to give the teachers a broader outlook by bringing them in touch with men of vast experience and great attainment in school work. The interest manifested by patrons has indicated the extent of good accomplished and the wisdom of the plan.

The available teaching force of the state has been increased during the year by 2,417 teachers. Certificates have been granted by the four state normals as follows: Michigan State Normal College, 667; Central Michigan Normal School, 216; Northern State Normal School, 119; Western State Normal School, 278. The forty-two county normals have graduated 636 teachers. One hundred forty-nine teachers' certificates have been granted to graduates of the University of Michigan who have taken the required course in psychology and pedagogy. The number of college certificates granted by the denominational colleges and Michigan Agricultural College is 133; the number of college life certificates is 39. Six state life certificates have been granted as the result of examination and 19 certificates have been indorsed from other states. Certificates qualifying for special work have been granted as follows: kindergarten, 73; music, 62; drawing, 48. Eleven first grade certificates have been indorsed and twenty-one such certificates renewed. In addition to these, county certificates have been granted in the various counties.

Certificates Granted.

For a long time it has been the opinion of educators of the state that an effort should be made to lead the young people to read the right kind of literature. In many localities the best books have not been accessible. Young people in those cases have been left to read indiscriminately such books as they could obtain. The inestimable benefit to be derived from a well directed course of reading needs no discussion. At the meeting of the State Teachers' Association in October, 1910, a committee was selected and empowered to make plans and put into operation the Michigan Young People's Reading Circle during the year 1911. An effort will be made to stimulate the establishment of a suitable library in every schoolroom, and to encourage and direct the reading of school children of books which are wholesome and educational. The committee appointed have selected a list of twenty-five books suitable for the various grades. Many of these books bear upon, supplement and make more interesting the regular work of the school. Arrangements have been made to furnish the books at greatly reduced prices. It is hoped that a perceptible benefit to the boys and girls of Michigan will be the result.

Young People's Reading Circle.

Mention is made in the following pages of various matters vital to school interests. A study of the statistical tables will show conditions and the growth along various lines.

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(b) Bulletin No. 9, Language Outline;
(c) Bulletin No. 16, giving general regulations concerning teachers' examinations;

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(c) Bulletin No. 16, giving general regulations concerning teachers' examinations;

(d) Bulletin No. 21, School Architecture;
(e) Bulletin No. 23, Summary of School Legislation for the Session of 1911;
(f) Bulletin No. 34, Sense Training;
(g) Bulletin No. 36, List of Publications on Agriculture;
(h) Bulletin No. 37, Common Michigan Birds;
(i) Bulletin No. 38, Teaching of Kindness to Animals;
(j) Examination Circular No. 8, giving the rules and regulations concerning the eighth grade examination;
(k) Circular No. 13, giving the free tuition law as amended in 1911;
(l) List of Approved Physiologies;
(m) A Revision of the State Course of Study, ninth edition.

The revised Course of Study retains the most valuable outlines and suggestions of the previous edition. Section 4680 of the School Laws requires all boards of education to specify the studies to be pursued in their schools. It is recommended that all rural school boards in the state adopt this Course of Study. This would be of advantage to pupils who, having finished the work of the eight grades, must pass the examination prescribed by the State Superintendent. The changes made in the last edition have particularly to do with language, geography and drawing.

It is hoped that teachers have found these publications of value.

In addition to the foregoing brief review of educational matters in the state, I attach herewith a summary of statistical information in order to give a general view of our school conditions and school expenses:

SUMMARY OF STATISTICS FOR THE YEAR ENDING JUNE 30, 1910.

1.	School Census	771,471
2.	Total Enrollment	541,501
3.	Enrollment in Graded Schools	327,213
4.	Enrollment in Ungraded Schools	214,288
5.	Percentage of Attendance	74
6.	Total Number of Teachers	17,987
7.	Number Employed in Graded Schools	9,490
8.	Number Employed in Ungraded Schools	8,497
9.	Total Teachers' Wages	$8,772,320 42
10.	Average Wages of Men per Month	105 32
11.	Average Wages of Women per Month	50 19
12.	Non-resident Tuition	171,734 61
13.	Average Number of Months School in Graded and City Districts	9.8
14.	Average Number of Months in Ungraded Districts	7.6
15.	Primary Money Apportioned	5,581,521 40
16.	One Mill Tax	899,098 49
17.	District Taxes	6,099,345 44
18.	Library Money	202,011 08
19.	Loans	1,879,180 43
20.	Other Sources	808,939 07
21.	Cash	6,797,505 73
22.	Per Capita Cost per Year by School Census	18 92

23. Per Capita Cost per Year by Enrollment	$26 95
24. Expenses for Several State Educational Institutions for the fiscal year ending June 30, 1909:	
University of Michigan:	
(a) Paid from State funds	$957,636 88
(b) Paid from other sources—tuition, productive funds, etc.	473,427 99
Michigan State Normal College:	
(a) Paid from State funds	155,155 05
(b) Paid from other sources	16,104 83
Central Michigan Normal School:	
(a) Paid from State funds.....	87,000 00
(b) Paid from other sources	3,232 45
Northern State Normal School:	
(a) Paid from State funds	52,550 00
(b) Paid from other sources	3,689 99
Western State Normal School:	
(a) Paid from State funds	93,500 00
(b) Paid from other sources	5,735 54
Michigan Agricultural College:	
(a) Paid from State funds	298,519 49
(b) Paid from other sources	117,301 71
Michigan College of Mines:	
(a) Paid from State funds	74,083 35
(b) Paid from other sources	46,505 35
School for the Blind:	
(a) Paid from State funds	41,990 64
(b) Paid from other sources	1,189 32
School for the Deaf:	
(a) Paid from State funds	94,582 23
(b) Paid from other sources	39,610 52
Industrial School for Boys:	
(a) Paid from State funds	90,618 00
(b) Paid from other sources	10,197 88
Industrial School for Girls:	
(a) Paid from State fund	76,265 00
(b) Paid from other sources	16,593 80
State Public School:	
(a) Paid from State funds	40,500 00
(b) Paid from other sources	16,254 16

NEW SCHOOL LAWS

The following is a synopsis of the laws enacted by the legislature of 1911, which affect the educational interests of the state:

Act 11 names the legal holidays for schools, which are as follows: New Years, May 30 or Memorial Day, July 4, Labor Day, Christmas, all Saturdays and all days recommended or appointed by the Governor or President as days of fasting and prayer or thanksgiving.

Act 12 amends the law in regard to the bonding of school districts and changes the per cent of the valuation from five per cent to ten, and the per capita from seventy-five to one hundred dollars.

Act 20 amends the law in regard to the granting of county certificates. The examinations are to begin on the last Thursday of April and the second Thursday of August of each year. It is also provided that the subjects of School Law and Course of Study shall be included in the examination and that the third grade certificates granted at the April examination shall be good until the thirtieth day of June of the following year.

Act 14 amends the free tuition law and defines a high school as a graded district maintaining twelve grades of work with at least two teachers devoting their entire teaching time to the ninth, tenth, eleventh and twelfth grades. A graded district maintaining ten grades of work with one teacher devoting her entire teaching time to the ninth and tenth grades, may receive tuition from primary districts and cannot be compelled to pay the tuition of its eighth grade graduates to a twelve-grade school until such students have completed ten grades of work in their own school. It is also provided that a child must hold a county eighth grade diploma in order to entitle him to have his tuition paid, or have passed the eighth grade in a graded district, or have had his tuition paid last year under this law.

Act 40 provides that physical training shall be included in the branches to be regularly taught in cities having a population of more than ten thousand and in the State Normal Schools.

Act 57 amends several sections of the School Laws and provides for three school funds, primary fund, building fund and general fund. It also provides that no school officer shall perform any labor for the district or furnish any material or supplies. It provides that the district board shall have authority to vote taxes for the running expenses of the school which shall include school furnishings and all appurtenances, the care of school property, teachers' wages, water supply, premium on indemnity bond, transportation of pupils, record books and blanks, and all apparatus and material which may be necessary in order that the schools may be properly managed, and for all deficiencies in such funds.

Act 43 amends the township unit law by providing that women can vote on the question of organizing under that law and sign petitions for it, and also by providing that graded districts having a population of nine hundred or less may be included in a township unit district.

Act 90 amends the law in regard to the taking of the school census by providing that it shall be taken during the fifteen and twenty days next preceding the first day of June, instead of the first Monday of June, and it is also specifically provided that a house to house canvass must be made.

The compulsory law has been amended by Act 255 and provides that the truant officer shall be appointed by the county commissioner of schools and that such truant officer shall have authority to inspect outhouses and if the district does not have them put in proper condition he shall do so at the expense of the district.

The county commissioner's law has been amended by Act 144 and allows the commissioner a clerk in counties having one hundred or more schoolrooms. In counties having 100 to 150 schoolrooms, the expense incurred for such clerk hire shall not exceed $300 in any one year, and in counties having more than 150 schoolrooms it shall not exceed $400. There was also a provision inserted that the salary of the commissioner shall not be less than $1,350 where there are 150 schoolrooms and not less than $2,000 where there are over 300 schoolrooms.

Act 217 gives to the Superintendent of Public Instruction authority to remove district officers from office for gross neglect of duty or for illegally using or disposing of district money. This does not apply to city districts. The same act also provides for one apportionment of primary money, such apportionment to be made between the fifth and fifteenth days of July. This takes effect in 1912.

Act 218 amends the law in regard to district treasurers by providing that if the people at the annual meeting designate a depository in which the district funds are to be placed and the bank or trust company fails that the treasurer shall not be held liable for the amount lost by such failure.

Act 22 empowers school districts to establish and maintain trade, vocational, industrial, marine and manual training schools, school gymnasiums and scholarships, and to accept gifts, legacies and devices.

Act 271 is an act to abolish fraternities, sororities, and all other secret societies among the pupils of the public schools of the state.

Act 146 amends section 4820 of the Compiled Laws, or compiler's section 183 of the School Laws of 1909, and provides that incorporated cities employing a principal of the high school and also a superintendent who gives not less than one-third of his or her time to school supervision shall be empowered to examine their own teachers and grant certificates to such teachers, all such examinations to be conducted under rules and regulations prescribed by the Superintendent of Public Instruction. This applies to all districts in the state, whether organized under special or general law.

Act 169 provides that women who are entitled to vote at school elections shall be entitled to enroll at the same times and places and in the same manner in which male electors are enrolled. Election officers shall prepare and furnish separate enrollment books for the enrollment of such women voters.

Act 198 is an act to provide means whereby children of indigent parents may attend school and specifies that in cases where it is reported to the truant officer that a child is essential to the support of his parents such truant officer shall investigate the case. If he finds that the ser-

vices of the child are absolutely essential to the support of the parents he shall report the case to the board of education and such board may in its discretion grant relief and is authorized to pay to the family of such child a sum not to exceed three dollars per week, during the school year, and not more than six dollars per week for the children in any one family. This money is to be paid out of the same fund as are the current expenses.

Act 231 is an act providing for the incorporation of colleges.

Act 61 provides that township boards may change the boundaries of primary districts organized by special act of the legislature.

Act 29 amends the law in regard to county schools of agriculture. The only change is that the Superintendent of Public Instruction is authorized to approve two such schools in a year instead of being allowed to approve only one.

Act 221 makes certain changes in the method of procedure in the election of school trustees in fourth class cities.

House Concurrent Resolution No. 34 proposed an amendment to the constitution in regard to the distribution of the primary school interest fund. This amendment is to the effect that all districts having enough primary money on hand at the close of the school year to pay their teachers' wages for two years and also tuition for that length of time shall not be included in the apportionment of primary money until the amount on hand in such districts shall be decreased to a sum not sufficient to pay teachers' wages and tuition for two years. The amendment was submitted to the people at the April election and carried. The apportionment for 1912, will be made on the new basis.

The new laws go into effect August 2, 1911. The school laws are compiled by the Secretary of State and the laws of 1911 will not be ready for distribution until about the first of November.

FREE TUITION LAW

Act No. 65 of the Public Acts of 1909, or the free tuition law, was amended by the legislature of 1911 and the entire law is given below as it now reads:

AN ACT

To provide for the payment of tuition in and transportation to another district, of children who have completed the studies of the eighth grade in any school district; and to repeal act number one hundred ninety of the Public Acts of nineteen hundred three, and all other acts and parts of acts in anywise contravening the provisions of this act.

The People of the State of Michigan enact:

Section 1. The district board or board of education of any school district which does not maintain a high school shall have authority and

is hereby required to vote a tax sufficient to pay the tuition to one of the three nearest high schools of any children of school age residents of said district, at the time of giving notice as hereinafter provided, who have completed the studies of the eight grades, not exceeding in amount twenty dollars per pupil per year, unless the voters appropriate a larger sum at the annual school meeting, and may vote a tax to pay the transportation during school days of such children, such tuition to be paid by the treasurer of the district in which the pupil resided at time of giving the notice herein provided, to the treasurer of the district where the high school attended is located: Provided, That a parent or the legal guardian of such children, or the person in parental relation to such children, shall give written notice to the district board or board of education on or before the fourth Monday of June that such children desire to attend one of the three nearest high schools during the ensuing year. Upon receiving written notice of children eligible to attend high schools the district board or board of education shall vote a tax sufficient to cover the necessary expense for tuition as herein provided, and may vote a tax sufficient to cover the necessary expense for daily transportation of such children: Provided further, That any surplus moneys in the treasury of said district belonging to the primary fund may be used in paying necessary tuition in lieu of a tax therefor.

Section 2. The tax provided for in section one of this act shall be reported to the clerk of the township in which such district is located and shall be spread upon the tax roll of such township in the same manner and at the same time as other school taxes.

Section 3 repeals Act 190 of 1903.

Section 4. A high school shall be a graded school maintaining twelve grades of work with at least two teachers devoting their entire teaching time to the ninth, tenth, eleventh and twelfth grades: Provided, That a graded district having a course of at least ten grades with one teacher devoting his entire teaching time to the ninth and tenth grades shall not be obliged to pay the tuition of its pupils to a twelve grade school until such pupils have finished ten grades of work in their own district: Provided further, That the district board in a primary school district may pay the tuition of its pupils who have satisfactorily passed the county eighth grade examination as hereinafter specified to a graded school district maintaining ten grades of work until such pupils shall have completed said ten grades of work after which the tuition of such children shall be paid to a high school as provided in this act: Provided further, That the provisions of this act shall apply to all pupils who have made application to have tuition paid under act number sixty-five of the Public Acts of nineteen hundred nine.

Section 5. Pupils eligible to have their tuition paid shall be the holders of county eighth grade diplomas granted by the county boards of examiners in the several counties under rules and regulations prescribed by the Superintendent of Public Instruction, or shall have completed eight grades of work in a graded school district as evidenced by the written statement of the superintendent of schools in such graded school district.

The law provides first that all districts which do not maintain high schools must pay the tuition to one of the three nearest high schools

of children who have completed the studies of the eight grades. A high school is defined as a graded school maintaining twelve grades with at least two teachers devoting their entire teaching time to the ninth, tenth, eleventh and twelfth grades.

A primary district is not compelled to pay the tuition of any pupil unless such pupil is the holder of a county eighth grade diploma or has passed at least the eighth grade in a graded school or had his tuition paid last year under the provisions of this law.

Written notice to the board on or before the fourth Monday of June is an essential part of the transaction. This notice may be signed by a parent, person in parental relation or legal guardian of the children making application for tuition. Any child who is a resident of the district on the fourth Monday of June and possesses the other necessary qualifications is entitled to have his tuition paid. When a child is a resident of the district at the time of making application, the tuition must be paid for the entire year by that district whether the family moves from the district or not. If a child moves during the year and wishes to change high schools there is no reason why he should not be allowed to do so.

The school board is required to levy a tax up to twenty dollars or the tuition may be paid from surplus primary money, if the district has such. The people at the annual meeting may appropriate a sum larger than twenty dollars, if necessary, but the board cannot pay a larger sum on its own motion.

The board may vote to pay transportation of pupils and levy a tax therefor if it sees fit to do so.

The tuition is paid in amounts and in a manner to be designated by the receiving district, that is to say, it is the province of the board in any school district to determine the terms and manner of admission of non-resident pupils. We recommend, however, that it be paid at the end of each semester.

The tuition is to be paid by one district treasurer to another district treasurer and in no case should money be paid to pupils or guardians.

It is the board that levies the tax for tuition and not the people.

This law is designed to take care of pupils who live near districts maintaining ten-grade schools and also of pupils who live in districts maintaining ten-grade schools. A school board in a primary district may pay tuition to a ten-grade school having one teacher devoting his entire teaching time to the ninth and tenth grades until the ten grades are finished. Then this district must pay the child's tuition for the other two years to a twelve-grade school. A district maintaining a ten grade school, after the ten grades are finished must pay the tuition of children having completed such work to a twelve-grade high school.

In making the application, one of the three nearest high schools is designated and a ten-grade school may be included as one of the three, if so desired.

Under the law as it now reads, neither the school board nor the teacher in a primary district has anything to say about whether a child has completed the studies of the eight grades or not. The law specifies that he must hold an eighth grade diploma or have completed eight grades of work in a graded district.

This law is mandatory and school boards have no discretion as to the payment of tuition.

APPROVED PHYSIOLOGIES

In accordance with Act No. 165, Public Acts of 1887, being compiler's section 61 of the School Laws of 1909, the following text-books on Physiology and Hygiene are approved by the State Board of Education for use in the public schools of the State, in regard to the nature and effects of alcoholic drinks and narcotics:

Allyn & Bacon, Boston.—Anatomy, Physiology, and Hygiene.

American Book Company, Chicago.—Advanced Physiology: Overton. Anatomy, Physiology, and Hygiene for High Schools: Hewes. Child's Health Primer. Eclectic Guide to Health. Elementary Anatomy, Physiology, and Hygiene: Hall. Elementary Physiology: Smith. First Book in Physiology and Hygiene: Kellogg. General Physiology for High Schools: Macy and Norris. Health for Little Folks. Hygiene for Young People. Hygienic Physiology. House I Live in (The). Intermediate Physiology: Overton. Intermediate Physiology and Hygiene: Hall. Lessons in Hygiene. New Century Primer of Hygiene: Hall. Outlines of Anatomy, Physiology, and Hygiene: Tracy. Primary Physiology: Overton. Primer of Physiology: Smith. Principles of Hygiene. Second Book in Physiology and Hygiene: Kellogg. Young People's Physiology. Youth's Temperance Manual.

D. Appleton & Co., New York.—First Book in Hygiene: Krohn. Graded Lessons in Hygiene: Krohn.

E. H. Butler & Co., New York.—Physiology and Health, Nos. I, II, and III.

Eldridge & Bro., Philadelphia.—First Lessons in Physiology and Hygiene: Mill.

Ginn & Co., Chicago.—Child's Book of Health: Blaisdell. How to Keep Well. Our Bodies and How We Live.

D. C. Heath & Co., Chicago.—Physiology (Briefer Course): Colton. Physiology (Experimental and Descriptive): Colton.

Henry Holt & Co., New York.—Briefer Course in Physiology: Martin. Elementary Course in Physiology: Martin. Human Body and Effects of Narcotics: Martin.

Leach, Shewell & Sanborn, Boston.—Good Health for Children: Brand. Lessons on the Human Body: Brand. Physiological Charts: White. Physiology and Supplementary Charts on Effects of Alcohol on the Human System: Smith.

J. B. Lippincott & Co., Philadelphia.—Beginner's Physiology: Cutter.

Comprehensive Physiology: Cutter.

Intermediate Physiology: Cutter.

A. Lovell & Co., Chicago.—Practical Work in the Schoolroom (Pupil's Edition). Practical Work in the Schoolroom (Teacher's Edition).

Macmillan & Co., Chicago.—Elements of Physiology: Coleman.

Physiology for Beginners: Coleman.

Maynard, Merrill & Co., Chicago.—First Lessons in Physiology: Hutchinson. Second Lessons in Physiology: Hutchinson. Our Wonder-

ful Bodies, First Book. Our Wonderful Bodies, Second Book. Physiology and Hygiene.

Sheldon & Co., Chicago.—Primary Physiology: Ellis.

Silver, Burdett & Co., Boston.—A Healthy Body. Elementary Physiology and Hygiene: Conn. Essentials of Health. Handbook of Simple Experiments in Physiology. Introductory Physiology and Hygiene: Conn. Primer of Health.

University Publishing Co., New York.—Physiology and Hygiene for Children: Eadie.

Werner School Book Co., Chicago.—Advanced Lessons in Human Physiology: Baldwin. Elementary Physiology: Dunglison. Essential Lessons in Physiology: Baldwin. Primary Lessons in Physiology: Baldwin. School Physiology: Dunglison.

Act No. 146, Public Acts of 1895, as amended by Act No. 141, Public Acts of 1909, being compiler's sections 159 and 160 of the School Laws of 1909, is as follows:

There shall be taught in every year in every public school in Michigan the principal modes by which each of the dangerous communicable diseases are spread and the best methods for the restriction and prevention of each such disease. Such instruction shall be given by the aid of text-books on physiology, supplemented by oral and blackboard instruction. *From and after July first, nineteen hundred ten, no text-book on physiology shall be adopted for use in the public schools of this state,* unless it shall give at least one-eighth of its space to the causes and prevention of dangerous communicable diseases. Text-books used in giving the foregoing instruction shall, before being adopted for use in the public schools, have that portion given to the instruction in communicable diseases approved by the state board of health to the state board of education.

Neglect or refusal on the part of any superintendent or teacher to comply with the provisions of this law shall be considered a sufficient cause for dismissal from the school by the school board. Any school board wilfully neglecting or refusing to comply with any of the provisions of this act shall be subject to fine the same as for neglect of any other duty pertaining to their office. This act shall apply to all schools in this state, including schools in cities or villages, whether incorporated under special charter or under the general laws.

In accordance with this Act the State Board of Health and the State Board of Education have approved the following physiologies:

Gulick Hygiene Series (5 Vols.), Published by Ginn & Co.
Conn's Physiology and Hygiene (3 Vols.), Silver, Burdett & Co.
Culler's Physiology and Hygiene (3 Vols.), J. B. Lippincott Co.
Davison's Human Body and Health (3 Vols.), American Book Co.
Overton's Applied Physiologies (3 Vols.), American Book Co.
Krohn's Physiology (2 Vols.), D. Appleton & Co.
The New Century Series (4 Vols.), American Book Co.
Hoag's Health Studies (1 Vol.), D. C. Heath & Co.
Ritchie-Caldwell Series (3 Vols.), World Book Co.
Tuttle's Principles of Public Health, World Book Co.

UNIVERSITY OF MICHIGAN

LIST OF ACCREDITED HIGH SCHOOLS

The privilege of sending students to the University on diploma is limited to approved schools. On request of boards of education or other proper school authorities, the University sends an inspector to examine the school and to report upon its condition. If satisfied from the report that the school has an approved course of study, suitable laboratory and library facilities, is taught by competent instructors, and in all respects meets the requirements for admission to the various departments, the University places the school on the approved list for a period not exceeding three years (inclusive of the year of inspection); reserving, however, the right to require another inspection if, within the period specified in each case, important changes affecting the course of study in the school, or the efficiency of instruction, seem to make an examination necessary. Graduates of schools which have been placed by the University on the approved list are admitted without examination on presenting a recommendation, signed by the principal of the school, certifying that they have satisfactorily done all the work required for admission. **Regulations.**

CONDITIONS GOVERNING UNIVERSITY APPROVAL

1. A high school faculty of not fewer than three teachers. This may include the superintendent provided he teaches the major portion of his time.
2. A commodious, safe, and hygienic building.
3. Adequate library and laboratory facilities.
4. A program of studies including the 15 units prescribed in the University calendar.
5. A school day of not more than seven periods of forty or forty-five minutes in the clear.
6. Properly qualified and efficient teachers.
7. High moral and intellectual standards and attainments.
8. The employment of modern textbooks and of the essential books of reference.
9. Inspection and recommendation by a University inspector.
10. Approval by the University Committee on Accredited Schools.

The following is a list of the schools in Michigan that are now on the accredited list:

Adrian
Albion
Allegan
Alma
Alpena
Ann Arbor
Ann Arbor, St. Thomas Academy
Bad Axe
Bangor
Battle Creek
Bay City E. S.
Bay City W. S.
Bay City, St. James Academy
Bay City, Holy Rosary Academy
Belding
Bellaire

Bellevue
Benton Harbor
Benton Harbor Collegiate Institute
Benzonia Academy
Bessemer
Big Rapids
Big Rapids, Ferris Institute
Birmingham
Blissfield, East
Boyne City
Bronson
Brown City
Buchanan
Cadillac
Calumet
Caro
Cass City
Cassopolis
Cedar Springs
Central Lake
Champion
Charlevoix
Charlotte
Cheboygan
Chelsea
Chesaning
Clare
Coldwater
Coleman
Constantine
Coopersville
Corunna
Croswell
Crystal Falls
Decatur
Detroit, Cass
Detroit, Central
Detroit, Eastern
Detroit, Higgins
Detroit, Home and Day
Detroit, McMillan
Detroit, University School
Detroit, Western
Dexter
Dollar Bay
Dowagiac
Dundee
Durand
East Jordan
Eaton Rapids
Elk Rapids
Escanaba
Evart
Fenton
Flint
Fowlerville
Frankfort
Fremont
Gaylord
Gladstone
Grand Haven
Grand Ledge
Grand Rapids, Central
Grand Rapids, John Calvin Junior Prep.
Grand Rapids, Sacred Heart Academy
Grand Rapids, Catholic Central H. S.
Grandville
Grayling
Greenville
Gwinn
Hancock
Harbor Beach
Harbor Springs
Hart
Hartford
Hastings
Hillsdale
Holland
Holly
Homer
Houghton
Howard City
Howell
Hudson
Imlay City.
Ionia
Iron Mountain
Iron River
Ironwood
Ishpeming
Ithaca
Jackson
Jonesville
Kalamazoo
Kalkaska
L'Anse
Lake Linden
Lansing
Lapeer
Leslie
Lowell
Ludington

Mancelona
Manistee
Manistique
Manton
Marcellus
Marine City
Marlette
Marquette
Marshall
Mason
Mass City
Mendon
Menominee
Midland
Milan
Monroe
Monroe: St. Mary's Academy
Morenci
Mt. Clemens
Mt. Pleasant
Mt. Pleasant, Sacred Heart Academy
Muskegon
Munising
Nashville
Negaunee
Newaygo
New Baltimore
Newberry
Niles
North Adams
Northville
Norway
Onaway
Ontonagon
Otsego
Ovid
Owosso
Oxford
Painesdale
Paw Paw
Pellston
Pentwater
Petoskey
Plainwell
Plymouth
Pontiac
Port Huron
Portland
Reading
Reed City
Republic
Richmond
River Rouge
Rochester
Rockland
Romeo
St. Charles
St. Clair
St. Ignace
St. Johns
St. Joseph
St. Louis
Saginaw E. S.
Saginaw W. S.
Saline
Sault Ste. Marie
Schoolcraft
Scottville
Sebewaing
Shelby
South Grand Rapids
South Haven
Sparta
Spring Arbor Academy
Stanton
Sturgis
Tecumseh
Three Oaks
Three Rivers
Traverse City
Union City
Vassar
Vicksburg
Watervliet
Wayne
West Branch
Williamston
Wyandotte
Yale
Ypsilanti
Zeeland

Number of accredited high schools in Michigan 195
Number of accredited parochial and private high schools in Michigan 15
Number of high schools in Michigan also accredited by the North Central Association 78
Total number of schools accredited by the North Central Association 773

INDUSTRIAL HOME FOR GIRLS AT ADRIAN

REPORT OF VISITING COMMITTEE

Hon. L. L. Wright, Superintendent of Public Instruction, Lansing, Michigan:

Dear Sir:—The committee appointed by you to visit the Industrial Home for Girls at Adrian visited that institution April 27, 1911, and as a result of that visitation respectfully submits the following report for your consideration. The report is presented under the following headings:

1. Buildings and Equipment.
2. Buildings Needed.
3. The Mentally Deficient.
4. Domestic Science and Art.
5. The School.
6. The Reforming Elements of the Home.

1. Buildings and Equipment.

The administration building, cottages, chapel, hospital and storage building were visited. The buildings were in excellent condition and with the exceptions mentioned under the next heading, seemed well fitted for the work for which they were intended. The equipment in every case seemed adequate without being extravagant. The case of the buildings, equipment and supplies cannot in the opinion of the committee be improved. It would be difficult to find an institution in which the property of the state is better cared for.

2. Buildings Needed.

The committee recognize the justice of the recommendations made by the President of the State Board of Guardians, Dr. James I. Northrup, and by the Superintendent of the Home, Mrs. Mary C. Johnson, for a larger hospital. The present hospital accommodates nine; with crowding fourteen can be cared for. The capacity of the Home is 325, and upon the day of visitation the committee were informed that there were 360 girls in the institution. The seriousness of this condition was made manifest in 1909 by an epidemic of scarlet fever that turned every cottage into a hospital, and delayed the work of the Home for months.

The financial loss was considerable owing to the necessary fumigation and to the destruction of bedding and other property that could not be rendered safe for future use. And as the epidemic was brought into the Home by a new arrival, the larger hospital would make it possible to detain one just entering until the period for contagious disease to develop would have passed.

Two cases of tuberculosis existed at the time of visitation and larger hospital accommodations would make the isolation of such cases possible. The figures given above illustrate the need of another cottage as well as a hospital. Crowded conditions in a hospital are certainly contrary to the best medical thought of today. Crowded conditions in the

cottages are especially incompatible with the basis idea of an institution of this character.

The sewing rooms used by the girls are at present in the basement of the chapel and are badly lighted, not properly ventilated, and should be abandoned. It was suggested to the committee that the frame building used for storage purposes be enlarged by making it a two story building and that the sewing department be transferred to it. The suggestions seemed practical and feasible. To one who visits the Home and realizes the importance of its work, the crying need for more hospital room, more cottage room, and better sewing apartments is self evident.

3. Domestic Science and Art.

The instruction in domestic science is in capable hands. The group system is employed and the girls are taught to prepare wholesome, simple food in a careful manner. The real aim of the school, to make the girls efficient members of society, is well emphasized in this department. All the house work of the cottages, including cooking, care of the rooms, and laundering is well done by the girls under the supervision of the manager of each cottage.

In domestic art the work consists of sewing, embroidering, fancy work of all kinds, and the unusual art of lace making by hand. The character of the work done in this department would be a creditable output to any school.

4. The Mentally Deficient.

Observation clearly showed there were in the Home a large number of mentally deficient girls that should never have been sent to this place. The committee were informed there were about fifty such cases. This would seem to indicate that all courts sentencing girls to this Home have not clearly in mind the difference between this institution and the one at Lapeer, or that the magistrates of these courts do not recognize the mentally deficient when they appear before them.

As a protection to the Home the committee recommends that strenuous means be resorted to, to free this institution of this burden. Some plan like this is suggested: That a committee be created, consisting of the Superintendent of Public Instruction, the President of the Board of Guardians, and the Superintendent of the Home, with power to return such girls as in their opinion come under the head of mentally deficient to the court that sentenced them, or to the county from which they were sent. In other words, to put into the hands of those in close contact with the institution power by means of which this evil can be avoided. Such a committee knows better the needs of the Home, its aims, its possibilities, and its limitations than is possible for a constantly changing personnel of our courts to know. And if legislation is necessary to bring about this reform, the committee recommends that the governor and legislature be urged to enact such laws as will aid the institution in solving the problem.

The nature of the Home is such that it should handle a moving population—girls who are not feeble-minded, but who are in most cases victims of their surroundings. The mentally deficient must remain with the Home until the age limit of twenty-one is reached. Then they are turned out on society no better equipped to be self sustaining than when they first went there. The committee only voices the best thought

of the age by maintaining that such girls should be permanently in an institution where they can never further burden society by offspring.

5. The School.

The day school was closed on account of house cleaning which was being done by the girls. The school rooms were visited and the work discussed with the teachers. In the opinion of the committee this part of the work of the Home should have a very careful reorganization. These changes seem advisable:

(a) That a teacher be chosen who shall hold the position of Principal of the School with authority akin to that vested in the Principal of our public schools. That the supervision of all the academic work of the school be entirely in her hands.

(b) That the teaching force be reduced one-half and that school be in session all day, half of the girls attending in the forenoon and the other half in the afternoon. By reducing the number of teachers in the day school more money would be at the disposal of the authorities to pay better salaries to teachers.

(c) That the course of study be revised to meet in a more effective manner the needs of the girls. That the study of arithmetic and technical grammar be minimized,—in fact almost abolished. That the instruction be limited to those subjects which in the minds of the best educators are deemed the great cultural subjects. That story telling be a chief feature of the work,—the kind of story telling that inspires girls to read good books. That music be taught as a part of the regular work of the school. That physical culture be a prominent part of the curriculum,—the same kind of physical culture that is being taught in the most up-to-date gymnasiums of our public schools,—Swedish gymnastics, play, games, dancing, etc. As an educator has said, "Formal gymnastics develop the body; play, games, dancing develop the heart and soul." The initial expense for the introduction of this line of work need not be great. The girls could make their own suits. Such outdoor games as tennis, basket ball, etc., could be played on the lawns in fair weather and at other times the seats in the chapel could be moved back and that room be used as a gymnasium, and the girls could have that spiritual uplift that comes from bodily exercise accompanied by music.

(d) That some of the text-books be changed for those with more modern ideas. The text-book in physiology does not meet the requirements of the law that a certain portion of the book be devoted to contagious diseases. That slates be abolished.

(e) That more instruction be given the girls that have passed the eighth grade.

6. The Reforming Elements of the Home.

Ability to earn an honest living is one of the main essentials for race efficiency and right living. The Home is doing a splendid work toward making the girls efficient by teaching them cooking and sewing and general house work. But that alone will not give moral fibre.

There are certain womanly instincts inherent in nearly all girls. The repression of these instincts will in the mind of the committee do much to retard the development of the girls. Girls like to talk, to chat, to try to make themselves look attractive, to look at fashion plates, all of which are harmless outbursts of femininity. The committee therefore

recommends that the girls be given more freedom to talk to each other and to satisfy those instincts natural to all good girls, so that the Home will in reality be a home and not a prison in any sense—a home where every appeal will be to the best there is in their natures and where every song and line of poetry breathe of positive faith in womankind and of love.

And as no influence is more potent in reforming a young girl's ideas of life along sane lines than is her close personal contact with women of strong personalities and broad sympathies for youthful tendencies, the committee recommends that the relationship between the girls and women of the institution be made very, very close and intimate, and that the girls be encouraged to talk with the women of the Home in the most confidential manner. Many girls get the wrong start in life on account of not having their natures' demand for sympathy satisfied during the adolescent period, so it is urged that everything be done to bring the girls into the closest contact possible with sympathetic natures. It is believed by the committee that the success of the reform feature of the Home rests to a large extent upon guiding the natural tendencies, not repressing them, and upon the subtle influence of a strong personality by the side of the individual girl.

The committee, realizing that the aim of the school is to make girls efficient to do honest work, and to give them moral stamina to stick to honest work and innocent pleasures, submits the above report with the kindest wishes for those engaged in the immediate work of the Home.

CORA JEFFERS, Painesdale, Michigan.
GRACE FULLER, Ypsilanti, Michigan.
Committee.

INDUSTRIAL SCHOOL FOR BOYS AT LANSING

REPORT OF VISITING COMMITTEE

To the State Superintendent of Public Instruction, Lansing, Michigan:

Your board of visitors to whom was assigned the duty to visit the State Industrial School for Boys at Lansing, begs leave to report as follows:

In obedience to your request your board of visitors spent Tuesday and Wednesday, April 11 and 12, at the school, and during that time made a thorough investigation of the methods and general system in force, both in the educational and industrial departments. Generally speaking, we found the school in excellent condition and its superintendent and assistants accomplishing wonders in the education and reformation of the boys placed under their charge.

At the time of our visit there were 752 boys at the institution, which number has remained fairly constant for several years past, the number being discharged or paroled being about equal to the number admitted to the school. As 750 is about the maximum capacity of the institution, whenever any new boys are sent to the school it is necessary that an equal number be discharged or paroled.

Boys are admitted to the State Industrial School up to sixteen years of age and, once admitted, they remain under its control until their eighteenth birthday, though they may be and frequently are paroled before that time. The average length of time that boys remain in the institution is twenty-two months. During this short period the aim of the management is to give every boy committed to their charge a grammar school education and to teach him at least the rudiments of some trade. How well they are succeeding in this is best shown by the records of those who have gone out into the world, 80 per cent of whom have become useful and lawabiding citizens.

The boys in the institution are divided into families of about fifty each, and each family is in charge of a family manager and a teacher. The family manager is usually a married man, who is assisted in the work by his wife. The families are housed in different buildings, there being from one to three families in one building. Each family has its own schoolroom and dormitory and there is a playground for each building.

Boys of the same degree of mental capacity and of like moral natures are placed in one family, as far as practicable. To illustrate, boys who are naturally kleptomaniacs make up one family; those whose mentality is sub-normal are placed in another; those who are truants and mischievous rather than naturally criminal in another, and so on. By careful selection teachers and managers who have shown their ability to deal successfully with the particular kind of boys placed under their charge have been placed in charge of each of these families. Under this system, of course, the boys of every family represent all ages, and all receiving instruction in one schoolroom, the method of the country school, rather than that of the city graded school, is being used.

In all of the schoolrooms there are boys from eight or ten up to eighteen years of age, who are doing school work ranging from first grade up to perhaps first or second year high school work. It is the belief of the superintendent, and results appear to bear it out, that a greater amount of knowledge can be imparted to an individual boy during the comparatively short time that he stays in the school, under the old-fashioned country school system, than would be possible were a system of graded schools adopted. A graded school would also break up the family unity, which is considered an important factor in the moral development of the boys.

Each of the boys is in the schoolroom four and a half hours each day, while the other half day is spent in some one of the industrial departments. The work done in the institution schools deserves unqualified praise. Though most of the boys before entering the institution have been averse to study, and in many cases have not attended the public schools more than a few months, in the State Industrial School these same boys, generally speaking, have developed into interested pupils, whose knowledge compares very favorably with that of the other boys of the same age. The course of study in the main is much the same as is pursued in the public schools of the state. Especially good work is being done in current events, civil government and penmanship. We believe that the industrial school boys are, as a whole, better penmen and do neater written work than the average boys who attend the city public schools. No systematic course in physiology and hygiene is given at the institution at the present time, though your committee was given to un-

derstand that the introduction of such a course is contemplated. We are of the opinion that it should be incorporated in the curriculum at the earliest possible moment.

A large proportion of the boys when they leave the institution have learned some trade, while all have some knowledge of a skilled occupation. The Industrial School contains the following departments: woodworking and basket weaving, carpentering, shoemaking, printing, tailoring, farming, baking, cooking, painting, laundering, stenography and typewriting, electric work, blacksmithing and flower and plant culture.

When a boy enters the institution, the employes of the institution obtain all information possible about him, both by talking with him personally and by correspondence with persons at his home. He is then placed in the industrial department to which he seems best adapted, the boy's preference being given consideration in deciding this problem. If he shows no adaptability to the work to which he has been assigned, he is transferred to another department and so on until a kind of work suited to his inclinations and abilties is found. Both the educational schools and industrial departments are in session all day, the boys who are in the schools in the forenoon being in the industrial departments in the afternoon and vice versa.

Your committee was highly gratified at the character of work that is being done in the industrial schools. The work given in the woodworking and basket weaving department is similar to that taught in the manual training department of the public schools. Most of the younger boys are placed in this department, where they are taught first of all to use their hands. Many of the boys who know nothing at all about the use of tools when they enter this department, in a short time develop a considerable degree of skill and at the same time acquire habits of industry and application. Those who show especial proficiency in woodworking are later transferred to the carpentering department.

One of the most interesting of the industrial departments is the tailor shop, where all the clothing worn by the boys in the institution is made, including suits, shirts, socks and underwear. Every boy when he leaves the school is given a tailor made suit, made in the tailorshop. These suits are well made in every way and are of better quality and appearance than the average boy of eighteen possesses. In the shoe department, all the shoes worn by the boys are made, and each year it turns out a number of competent shoemakers, who readily find employment at good wages. These two departments by supplying shoes and clothing for the institution materially reduce the cost to the state of supporting the school.

The work done in the printing department compares very favorably with that done in the average small commercial printery. Boys are not admitted to this department unless they have made sufficient progress in their school work to warrant their making competent printers. The work includes type setting, operation of platen and cylinder presses, and general printing work, both in black and in colors. The department prints the institution paper (a very creditable sheet) and does some work for the board managing several of the state institutions. Boys who take this course readily find work in printing offices.

Another department in which truly remarkable work is done is the

commercial department, where the pupils are taught stenography and typewriting. Only boys who have a good fundamental education and who show a natural inclination for commercial work are admitted to this department. Actual tests made by your committee show that several of the boys in this department are able to take dictation at the rate of from 125 to 150 words per minute, and to transcribe their shorthand notes as accurately and rapidly as is necessary in general commercial work. The "touch" typewriting system is taught, there being no letters on the keys of the machines used in the school. The course also includes a short course in bookkeeping, and quite a number of the boys who have gone out from this department have made a marked success in the business world.

In connection with this school, a farm of over 300 acres is operated, in the cultivation of which a large number of boys receive valuable instruction in farming and dairying. Raising of sugar beets is the principal industry on the school farm, though all of the vegetables used on the tables are raised, with the exception of potatoes, it having been found more profitable to buy potatoes with the proceeds from the sale of sugar beets than to raise them. Thirty or more dairy cows are kept and the revenue from milk and butter amounts to considerable. A new dairy barn of the most modern type has recently been completed to replace the one destroyed by fire about a year ago. Dairying and farming are both carried on under the direction of competent instructors and the boys in the farm department receive much valuable agricultural knowledge. Two concrete silos recently constructed were built entirely by boys committed to the institution. A blacksmith shop is operated in connection with the farming in which a number of boys are taught the blacksmith's trade.

The larger part of the work in the cooking, baking and laundry departments is done by the boys, those employed in these branches of the work not only helping to reduce the cost of maintaining the school but at the same time learning an occupation which in after life will be of use to them in earning their living. A first class green house is also an interesting department of the school, and a number of the boys take much interest in the culture of flowers and plants, many of which are put in artistic beds about the grounds in the summer time.

In the dining room at meal time and in the chapel on Sundays are the only times that all the boys committed to the school are brought together. To see the boys march into the immense dining room to their meals is an impressive sight. They are seated at tables of about twenty each, each table being in charge of two stewards, boys in the school who win these positions by good conduct and general merit. The position of steward is regarded as a great honor by the boys and the rivalry for those positions works out excellently as an incentive to good behavior. While the boys are given no systematic instruction in table manners, their demeanor at the table is excellent.

The routine program at the school is as follows: Rising bell at 5:30 a. m.; breakfast at 6:15; work or school at 7 o'clock; recess 8:30 until 8:45; work or school until 11 o'clock; dinner at 11:30; work or school at 12:30; recess from 2:15 to 2:30; work until 4:15; all to bed at 7:15 p. m. Every boy's work is supposed to be over at 4:15 and from then until

bedtime his time is largely his own. Shorter play times are permitted at the recesses and before and after meals.

Baseball is the sport in which the boys of the school take most interest. Several teams are formed each season in each cottage family and a regular schedule of games is played, the games being scored according to league rules. By this series of games, a good natured rivalry between the different families is engendered. All the boys are loyal to their cottage or family, and take much pride in its record, in athletics, school work and discipline. Because of this cottage loyalty and patriotism, many of the difficulties of discipline are done away with at the outset. In the winter time, a series of basketball games is played, but this game has not found the place in the boys' hearts that baseball has, largely because the facilities for playing basketball are not adequate.

Your committee was particularly favorably impressed with the "open institution" system in force at the school, there not being the slightest indication of a prison about it. No guards are stationed either in the buildings or about the grounds, and there is nothing to prevent any boy running away at any time. Running away is discountenanced by the boys themselves to such a degree that very few instances occur. The same is generally true of breaches of discipline and, largely for this reason, the problem of government is a simple one, under the present management. The institution is conducted on a military basis and it greatly resembles a military school. Systematic instruction in military tactics is given and the boys take pride and pleasure in the maneuvers, which at the same time gives the boys poise and carriage such as could be obtained in no other way.

Notwithstanding that a large part of the boys committed to the school have been guilty of petty or serious crimes and have before their admission been averse to school work or regular habits there is nothing in the appearance of the boys to indicate that such was the case. One and all, they appear to be greatly interested in their work, both in the schools and in the shops, and also anxious to do right and act honorably both toward one another and in their dealings with their instructors.

On Sundays the boys attend services in the forenoon conducted by some one of the teachers, and in the afternoon a service is held at which some outside speaker gives a short talk. Grace is said before every meal. Various entertainments are frequently given at the school, and the boys occasionally are taken to moving picture shows and other entertainments down town. The boys take much interest in musical work and a school band, an orchestra and a choir are organized each year.

Very little trouble is experienced from sickness among the boys, although a hospital with a graduate nurse in charge is maintained. Regular habits and good wholesome food are considered the best preventatives against sickness by the management. Your committee found that no provision is made for a systematic medical inspection and examination of every boy admitted to the institution, though those who are suspected to be afflicted with some communicable disease are examined by a physician. It is your committee's opinion that every boy admitted to the school should be first given a thorough medical examination, and that any found to be afflicted with tuberculosis or other communicable ailment should be excluded from the institution. Such a medical examination, of which a complete record should be kept, would also be of value

in dealing with the pupil after admission, particularly in the case of defective vision, hearing or other trouble of like nature.

Your committee was also informed that the room designed for a gymnasium has never been equipped, owing to the lack of funds. Whatever amount is required to properly and completely equip this gymnasium should be appropriated as soon as possible, as gymnastic training would be of inestimable benefit to the boys, especially in the winter time when out-of-door sports are not practicable. We also learned that there is no library in connection with the school, except as books and magazines are sent in from outside. We believe that the boys should be given the advantage of a first class library, in which they could develop a love for good literature and add to their general knowledge.

The superintendent, E. M. Lawson, has recommended that boys should not be committed to the Industrial School for simple truancy. Your committee believes that this is a wise recommendation. A truant is not in the same class with a boy who commits larceny, and should not be sent to the same place to be cured of that habit. Truancy can usually be corrected in a few months, and it is hardly fair to a truant boy that he be committed to a school, under the control of which he must remain until he is eighteen years of age.

Your committee wishes to express its appreciation of the utmost courtesy and many favors extended by the superintendent and his assistants and teachers, during their visit to the Industrial School.

Respectfully submitted.

(Signed) ROBERT C. LOWE,
J. S. WEIDMAN, JR.
Board of Visitors.

BIENNIAL REPORT OF THE BOARD OF CONTROL OF THE MICHIGAN COLLEGE OF MINES FOR YEARS 1909-1910

This report covers practically the twenty-third and twenty-fourth years of active work at the Michigan College of Mines.

During this period the College has graduated the largest two classes in its history. At the close of the year 1908-9 fifty-one men were granted degrees, and fifty-two at the close of last year.

In this connection the question naturally arises, is our increased output readily absorbed. Notwithstanding the severe economic conditions during the last two years, which have limited the demand for technically trained men, all the recent graduates of the College as far as is known have obtained positions in their professions.

The distribution of the graduates remains much the same as in former years. In every important mining region of the world outside of Europe there are men from the College and this Board is pleased to say they are almost without exception upholding the honor of the State and of the institution that trained them.

There are now a total of 556 living graduates. It is the purpose of the Board and Faculty to mark the completion of twenty-five years of

operation of the institution by bringing as many of these graduates as possible back to the College for a reunion and celebration, which will be held in the week beginning August 6, 1911. Alumni from widely separated parts of the earth are planning to be present at that time to renew acquaintance and touch with each other and with the College. In attendance and in many other respects success is already assured and the reunion will be of great value to individual alumni and to the College.

This board continues to pay particular attention to the matter of accounting. A standing committee of the Board makes a quarterly audit of the requisition accounts in the executive offices, at which the books of the College accountant are checked against the requisitions authorizing the purchases, and each recorded disbursement is checked against both the corresponding voucher and the requisition.

The College accounts are being kept according to business-like methods and the resources of the institution are being expended for legitimate ends with care and economy.

In addition to the audit by the State Accountant an independent audit of the accounts of all College officers handling money has been made by Mr. Loren D. Cone, Certified Public Accountant of Chicago, covering the business of the College for the biennium ending June 30, 1910. A copy of the report of this audit has been filed with the Auditor General at Lansing, where it may be consulted.

Since our last report there has been constructed on the campus the Library and Mineralogical Building provided for by the legislature of 1907. It is a plain but commodious building, housing the library, the Museum of Geology and Mineralogy and the executive offices. It is of fireproof (slow burning) construction and offers adequate protection to valuable books and minerals. It contains a specially protected filing room, in the nature of a vault, for the records of the College. The building meets a very great need on the score of both room and protection.

Our greatest need at the moment is for systems of forced ventilation in Hubbell Hall and in the Mechanical Building. This, along with other needs, will be presented to the Legislature and it is not thought to be necessary to argue the obligation to furnish good air to students.

The board feels it ought again to call attention to the instructional facilities extended to the College by the various mining and smelting companies in the iron and copper districts of Lake Superior. Only persons familiar with the conditions can appreciate what these courtesies contribute to the training of students and what they cost in the way of money and inconvenience to the companies.

(Signed), WILLIAM KELLY, Chairman.

BULLETIN NO 34

STATE OF MICHIGAN

DEPARTMENT OF PUBLIC INSTRUCTION

SENSE TRAINING

Principles:

Alertness, attention, physical and mental quickness, skill and accuracy are of first importance.

Training is of more importance than the acquisition of information.

Young children must be trained through the perceptive faculties.

Since the senses are first in development, the first step in school training should be to give them a systematic culture. Older pedagogic methods endeavored to omit this training for the training of the higher powers of the mind. The child's intellectual activity consists in seeing and hearing rather than in reasoning and reflecting. Any mode of teaching that attempts to substitute the latter for the former is false in philosophy and bad in its results. It is the teacher's business to make the senses sufficiently accurate and delicate for the purposes of school work and life.

The exercises are not an end in education; they are but a means to an end. Knowledge of the material world is derived through the senses, and such knowledge is limited by their acuteness. However the facts gained are second in importance to the power to observe. It is the habit which is to be cultivated.

Accurate sense perceptions are the best preliminaries to accurate reasoning. Many and various exercises and frequent drills in sense training develop a habit of attention, power of application, acuteness of perception, accuracy of memory, and precision of judgment.

The senses should be trained in proportion to their intellectual importance, and exercises should be suited to the grade and should advance in difficulty in order to result in growth.

TEXT-BOOKS IN THE HANDS OF YOUNG PUPILS DO MUCH TO PREVENT THE DEVELOPMENT OF THE POWERS OF OBSERVATION.

Special exercises, such as color work, are not mainly to teach color but to train pupils to visualize, to attend, to compare, and to express. Drill along this line is needed by all pupils before beginning the usual studies of school. The work in visualizing, when combined with ear training and hand training, is of especial value in all work in arithmetic and in the sciences.

In the first years of school every effort of the teacher should have in constant view the education of the eye, the ear, and the hand. In connection with this work teachers have opportunity to note peculiarities and defective senses of pupils, and they are enabled to deal with such pupils with this in consideration.

The following exercises are not to be used to the exclusion of others but are given as a guide to suggest others and to supplement the work given in the State Course of Study. Any devices and exercises which tend to train the pupil to sense things quickly and accurately may be used. Be sure the exercises are suited to the learners' minds and to their physical condition.

SENSE TRAINING EXERCISES

FIRST GRADE

Visualization or Sight Training:

Place three solids such as a cylinder, a cube, and a sphere in a row on table. Let pupils look at them a few seconds, then cover them and have pupils name them from right to left and vice versa. Later take four solids, then five, and so on. Objects such as pencils, pitch pipe, chalk, ink well, may also be used.

Teacher walks around touching several objects; child then touches the same objects.

Hold up colored circles in quick succession. Have pupils name colors in correct order.

After pupils learn numbers place a row on board as 2, 4, 6, 8. Erase quickly and have pupils repeat.

Send pupils to board. All watch while you write a word. Erase quickly and have pupils rewrite. First take a word of two letters, then three, four and five.

2 3 4 After pupils know the combinations place this exercise on the board and erase. Pupils should answer
2 3 4 6, 9, 12.
2 3 4
— — —

Send one child into the hall. Have six or eight pupils exchange seats. Child comes back and beginning at the front row says, "John, change seats with Mary," etc., until all are in their own seats.

Arrange a row of four pupils in the front of the room. Allow pupils in seats to look at them for a few seconds, then have them put heads down on desks and send the pupils in row to different parts of room. Ask some child to rearrange them.

Use pointer and make phonetic sounds or write words in the air or on the board and ask pupils what you wrote. Later let one pupil do this for the others.

Write a sentence on the board and erase immediately, ask for it or write one word at a time, erasing each quickly and ask what sentence the words made.

Arrange a group of objects behind a screen. Allow pupils to pass along and look at them as they pass, then see how many they can remember.

Cut out pictures of stoves, chairs, or anything from a catalog or newspaper. Get a number of cards about one foot square. Paste three pictures on one card, No. 1); four on the next (No. 2); five on the next

(No. 3); six on the next (No. 4); and so on. First hold up No. 1 steadily a second and ask some pupil to tell what was on it. Have many cards of each number. After the No. 1's have been used, take No. 2's, then No. 3's, etc.

Teacher hold up a solid and put it out of sight very quickly. Pupils name. Then hold up several in quick succession and have pupil name in quick succession.

Have three, four, five, or six pupils stand before class. Have pupils at seats put heads down and teacher arrange pupils standing. Pupils look for a second, then heads down and teacher rearrange. Pupils look and one puts children in original positions.

When pupils are learning the numbers:

Have numbers up to ten or twenty on blackboard. Teacher points rapidly to two or more numbers and pupils name.

Have numbers 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24 on blackboard. Teacher says 4 8 12 As she says these one pupil points to sum

4 8 12 quickly.

— — —

Teacher holds up two solids having ratio of 1 to 2. Teacher names small solid 2 or 6, etc., and pupil names larger solid.

Teacher holds up two solids and puts them down very quickly. Pupils compare as: the small one is equal to ¼ of the large one, etc. Or pupils give ratio as 4 is the ratio of the large solid to the small solid.

Teacher uses pointer, ruler, or pencil and writes figures in the air. Pupils name. Teacher writes 2 5 etc. Pupils give sum.

2 5

— —

Number one set of solids 1, 2, 3, 4, 5, 6 and place in row on table. Cover and change the position of solids. Uncover for a minute, then cover and pupils number the solids from left to right. Use three solids at first, then the whole set.

Teacher perform a number of actions as: clap the hands, pick up a book, turn the door-knob, use the eraser. Pupils do the same.

One pupil leaves room. One who was blindfolded tells who has gone.

Name blocks at sight, rectangular prism, square pyramid, cone, etc. Compare solids thus: my right hand block is smaller than my left hand block and vice versa.

Place your hand or ruler on left of desk, right of desk, front of desk. Remove quickly. Child tell position.

Draw lines of different lengths on blackboard. Have child tell length in inches, and tell which is shorter, longer, etc.

Draw a rectangle, circle, and other forms on board. Erase quickly. Child tell what you have drawn.

Show child two or more blocks. Compare in regard to height, width, and thickness.

Have children stand in a row with colored caps. Pupils at seats close their eyes, and change the order. Then pupils arrange in original order.

Have children stand in row with colored caps. Pupils at seats close their eyes. Send one or more out in hall. Children tell what colors are gone.

Have colored balls in a row on table. Pupils close eyes. Change the order. The pupils arange in original order.

Place in a row on table objects as: cup, book, box, etc. Pupils close eyes. Change order; pupils arrange in the original order.

Place cone, sphere, cube, etc., on table in a row. Pupils close eyes. Change order and have pupils arrange in original order.

Place solids or same set in a row on table. Pupils close eyes. Change order and have children arrange in original order.

Handle sets of blocks, first using blocks one inch in height. Then two inches and three inches in height. Children find blocks of different heights as teacher indicates. Study tops and then build and arrange in sets.

Children glance around the room. Close eyes and tell what was seen. Let them look out the window for an instant, then turn away and tell what they saw.

Draw circles, squares, and rectangles on board. Children tell which are largest, which smallest, and which equal.

Use pictures of birds common to the vicinity (crow, robin, blackbird, and sparrow). Tell name, the teacher holding the picture before the children but an instant. Arrange pictures in row. Children name in order. Change order, and let the children replace.

Teacher shows a twig with leaves upon it and has children tell from what kind of tree it was taken. Continue in this way until several different twigs have been used. Have a number of leaves upon table. Teacher shows a twig and has a child or number of children pass to table and find leaves like the ones on twig shown.

Have several objects in a box. Send several children to box for an object. At a given signal the objects are shown for a moment. A child is called upon to tell what each one has.

Have children stand in front of board with crayon in their hands. Teacher draws two vertical lines, erases them and has the children reproduce what they saw. Teacher then draws square, circle or triangle and continues as before.

Have children stand before blackboard with crayon in their hands. The teacher writes a letter, names it, and gives the children a moment in which to think about it. Then the children name and write it. Use words in the same way. Later complete sentences may be visualized.

Mount colors upon cards and hold before class. Then have pupils tell what they saw. Example—"I saw two red circles, one blue square, and two yellow oblongs," etc.

Find objects in room that are circular. Note objects while going to and from school that are circular, square, rectangular, etc.

Teacher prepares squares of one size giving one to each pupil. Children note the size and try to draw one of the same size. After the children have drawn their squares, have them compare them with the given square.

Cutting. Same as above except that children are to cut a square similar to the given square.

Have children draw and cut oblongs, triangles, and circles by above method.

Ear Training:

Place a wooden object and a glass on the table. Sound with a ruler and have pupils learn to distinguish quickly. Later take a book, the blackboard, a tin can, an eraser, a silver cup, etc. Then have a pupil turn his back and as you rap quickly say, "silver, tin, wood," etc.

Clap first a measure of two beats, one of three, one of four, then two measures of each, etc., teacher clapping first and one pupil rising and doing the same thing.

Place about ten pupils in a circle. One child with a pointer in center, blindfolded; circle of children dance around until you say, "ready," then halt and child in center points and says, "What is this?" Child pointed at answers, "It is I." Blinded child guesses who speaks.

Have one child skip to corner and turn his back. Some child says "Good morning, John." Child in corner answers, "Good morning," (names child speaking).

Give several commands at once as: "John ring the bell, close the window, come to me." These must be obeyed in the order given.

Teacher uses pointer or ruler and taps on glass, wood, book, blackboard, window, iron pipes, etc. Pupils close eyes and see if they can tell what was struck by the sound.

Teacher drops marbles into small box. Drops three or four in quick succession and pupils tell how many. Pupils tell if a large or a small marble is dropped. Pupils tell if it is dropped from high or low place.

Teacher says, "I am thinking of a solid that has a curved surface." Pupil says, "sphere." "I am thinking of a solid that has two round surfaces and a curved surface." Answer, "a cylinder." "I am thinking of a solid that is 4x4x4." Answer, "four inch cube," etc.

Tell children to listen. Then let them tell what sounds they heard.

Let the children listen. The teacher or child drops an eraser in different parts of the room. Then children point in the direction from which the sound came.

Write letters upon board. Give sounds. Child points to letter and gives sound. Use words in same manner.

Touch Training:

Blindfold the child and teach the difference in feeling between silk, wool, linen, etc.

After they know the solids, have them put their hands behind their backs. Give each a solid and have him tell by feeling what it is.

After pupils know the relation of solids, ½, ⅓, ¼, ⅕, ⅙, have them put hands behind backs. Place in the child's hands two solids and by feeling them, have him tell you whether he has solids one and two, one and three, one and four, etc.

Have pupil feel quickly, by passing his hand over it, a book, a pencil, the table, desk, eraser, etc., and name each.

Have one pupil come to the table. Place solids in his hands behind his back and have him name them.

Have pupil hold hands behind his back. Give him solids and after he has felt them, give their dimensions without looking at them.

Allow children to feel pieces of different kinds of cloth, such as silk, wool, and cotton, then have them turn their backs. Place a piece

of cloth in their hands back of them, let them feel of it and tell what kind of cloth it is.

In like manner use blocks. Let child give height. Later on have him give all dimensions.

Let one child feel another child's dress and from the feeling tell who the child is.

Let child feel of different surfaces. Tell whether it is rough or smooth, broad or narrow.

Have a certain place for articles belonging in a child's desk. Insist upon the articles being in their places. Teach children to feel for the articles.

Children name objects by feeling them. Tell whether they are smooth or rough, light or heavy, etc.

Tell different material such as wood, tin, rubber, cloth, etc.

Smell Training:

Bring different kinds of fruit. Children distinguish different fruits by smell.

Taste Training:

Bring a small amount of sugar, salt, pepper, etc., and allow children to distinguish by taste.

SECOND GRADE

Visualization or Sight Training:

Place different solids of various sizes such as cone, sphere, cube, pyramid, in a row behind screen. Remove screen and allow children to look at objects for a few seconds. Replace screen and have children name objects from right to left and vice versa.

Give each child a foot ruler. Show him an inch; then six inches; have him go to the blackboard and draw a line one inch long, six inches, and one foot. Afterwards have him measure his lines with ruler to see if they are correct.

After scattering blocks on table, have children find two blocks of same shape that are equal. Then find blocks of different shapes that are equal.

Take a set of six blocks. Place them in the following order—2 in., 6 in., 3 in., 1 in., 4 in., 5 in. Name the 6 in. block twelve. Have children name the others.

Take a set of six blocks. Compare 1 in. block with each of the others. Then compare each of the other blocks with all the remaining blocks.

Have row of children skip to table and find a block which has a relation or ratio of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{3}$, $\frac{5}{6}$, to some other block and vice versa.

Using the 1 in. cube as a unit of measure, have children take different blocks and find how many cubic inches they contain.

Teacher holds up quickly two blocks from same set as 2 in. and 4 in., puts them down and calls on child to give the relation of blocks he saw.

Teacher writes two numbers on blackboard quickly, then erases. Teacher calls on child at seat to give sum.

Teacher makes a column of four figures in the air. Children reproduce on blackboard and write sum.

Have a row of children take any block from the table and compare one face with another.

Have six or eight children stand in a row in front of room. Children at seats close eyes while teacher or pupil changes order of children standing in front. Then call on child at seat to arrange pupils in row as they were at first.

Have children cut from paper a 2 in. square. Then cut one twice as large and compare them. Then one three times as large.

Place a number of solids on table. Have a child find largest solid. smallest solid. Find solids that are larger than other solids. Name pupils in class that are larger than other pupils. Objects in room that are larger than other objects.

Teacher write four music notes on blackboard. Erase quickly. Child tell notes in order. Vary order.

Mount pictures of familiar objects on cardboard. Hold up cardboard. Child tell objects in order. (Be sure pictures are large.)

L

Draw a line equal to L.——— Draw a line two times as long as L. Draw a line three times as long as L. Letter the lines differently and then add them in this way:

L M N

———— ———— ————

The sum of L and M is equal to N.

Have children look around the room and close their eyes and tell what they saw.

Have children look for objects in the room that are round, oval, square, oblong.

Hold different colored cards before the class. Take one card away and have children tell what color is gone.

Put a word on the board. Erase, then have a child skip to the board and write the word. After they are able to visualize words quickly and accurately, give them whole sentences.

Introduce games such as "Hide the Thimble."

Child looks at a block for an instant and gives dimensions of it. Tells how many times a small block is contained in a large block, both being shown for a few seconds.

Take six blocks, calling them one, two, three, etc. Do not arrange them in their regular order. Have the child see them, cover quickly, and let him give the order in which you have arranged them.

Give a value to one of the blocks and have child tell values of all the others, e. g., the first block is two, what are the values of the other blocks, etc.?

Draw different forms of blocks on the board. Erase quickly. Let the child tell the form which was drawn.

Place numbers on the board, three or four places in each. Erase quickly and let child tell the number.

Put simple addition problem on the board. Erase and have child give the answer.

Place 2, 3, 5 on the board. Then write 2, 3, 6, etc. Let the child give answer in multiplication.

Write a phonogram on the board and three words containing phonogram. Erase all and have pupil tell what you wrote.

Write five or six letters on the board, erase, and have children tell what they were.

Have a number of phonograms or diphthongs on the board, erase one at a time quickly, and have pupil tell which one was erased.

Have one child touch an object, another child runs up and touches this object and another, a third child touches these two objects and a third object, and so on, until fifteen or more objects have been touched.

Have a number of different kinds of twigs in one hand. Let children study them a minute, then conceal them and have pupils name the kinds seen.

Repeat this same exercise using early spring flowers.

Ear Training:

Have a number of children go to the board. Teacher calls four numbers as 5, 6, 9, 7, while children listen. Then children write from memory.

Children put heads on desks. Teacher touches child who is to knock on desk. Then teacher calls on child in distant part of room to point in direction from which the sounds came.

Have all children in room listen for a minute to all the noises they hear both in and out-of-doors.

Send one child to corner with back to children at seats. Teacher points to child in seat and he says, "Good morning, Mary," to child in corner. Child in corner says, "Good morning," to person she thinks spoke to her.

Teacher sends row of children to board. Teacher dictates list of numbers such as 432, 650, 235, etc. Children write them in a column.

Children close eyes and the teacher rolls hard and soft rubber balls and a wooden sphere. Children then guess which was rolled.

Call out row of children. Teacher sounds familiar phonograms. Children sound and spell.

Have all of the blocks on the table. Give the dimensions of one certain block as: Find a block two inches high, three inches wide, and four inches thick. The child skips and finds the block and says, "This block is two inches high, three inches wide, and four inches thick."

The second grade have only the table of two's, but this exercise can be worked out in this grade:—Give one child a ball and have him bound it. As he bounds the ball he says to himself, "$2 \times 1 = 2$," etc. All of the children in their seats think the same and the teacher calls on another child who stands and continues the exercise.

Play exercises on the piano in 2-4, 3-4, and 4-4 rhythm and have children at board indicate by marks the exercise played.

Sing the notes of the scale accenting some notes more than others. Have children tell which are accented.

Teacher taps on desk a number of times. Pupil writes number on board.

Have children bow heads on desks. One child is chosen to be the Mother Hen and leaves the room. Name three children at their seats to be the little chickens. The Mother Hen comes in and says, "Cluck,

Cluck." The three little chickens answer, "Peep, peep." Mother Hen guesses who are her little chickens.

Story of "Stage Coach" told. Each child in the room represents a person or an object about the stage coach. As the story progresses and the name of the objects or persons about the stage are mentioned, the child representing each stands and whirls around once, every time his or her name is pronounced.

Have a number of combinations of sounds on the board. Teacher sounds two and has two pupils each sound one and find same at the board.

Have a number of books of various sizes and thicknesses on the table. Teacher touches three or four books at the same time naming an adjective that describes the book touched. Then have child come up and repeat what you have done.

Using the 8, 7, 6, 5, etc., in music, point in rhythm to a group of figures singing as you point, and then have child repeat same.

Teacher describes a number of familiar objects, giving two or three distinguishing facts about each. Then has pupil tell name of the object described.

Send three children from the room and have them sing in turn, while pupils in the room guess who is singing.

Touch Training:

Have ten or twelve children stand in front of table with their hands behind them. Pupil or teacher drops a block into each child's hands and children tell dimensions of blocks by feeling them. Tell which is heavier, lighter.

Recognition of different fruits,—pear, orange, apple, banana, etc., by touch.

Recognition of familiar objects as cup, bottle, etc., by touch.

Touch a child with a pencil, piece of chalk, a twig, a small piece of paper, and see if he can tell what it is.

Smell and Taste Training:

Exercises to train the sense of smell and taste may be introduced by the use of fruits, vegetables, sugar, salt, soda, etc.

THIRD GRADE

Visualization or Sight Training:

Teacher writes column of four figures on board quickly, erases, then calls on individual children to give answer. Proceed in same manner with subtraction, also with the tables.

Teacher writes column of four figures in air or with pencil on board, then calls on children to give answer orally or to write answer on board.

Teacher writes number as $345,678 on board, erases, then tells children to reproduce same on board or to read same orally.

Teacher writes figures as 324 on board, erases, then tells children to reproduce same.
451

Give child a foot ruler or yard stick and let him observe length. Then have him put same aside and draw a line on board a foot or a yard long.

Have children draw a six inch square on board without ruler, a square foot, a rectangle two inches by four inches, etc.

Have children estimate the length or width of door, window, desk, height of their schoolmates, etc.

Place set of blocks before children. Teacher names one block, then covers blocks while she changes order, uncovers for a moment, then calls on child to name blocks in order quickly.

Place a number of objects before children, cover, change order, uncover. Then call on children to name objects in order.

Teacher draws five or more lines on board one under the other, letting shortest line represent 2c, $3, 5 in., etc. Teacher names longest line or shortest line, lets children name the rest.

Rows skip to the table (girls to the front and boys to the back). Find blocks one-half, one-third, one-fourth, two-thirds, three-fourths, five-sixths, and equal to other blocks.

Give number of the large block. Have a child tell what the small one would be and then add the two.

Call the blocks, cylinders, triangles, cubes, squares, etc.

Child skips up to the table, puts hands behind his back. Place a block in his hands and have him tell what kind of a block it is, as,—"This is a cylinder," and hold it up.

In the same way let pupil give the dimensions instead of kind of block.

Draw figures of blocks in a set on the board and letter them as A (large) B, C and D, compare them, how many small ones could be made from the large, etc.

Draw figures of blocks on board, give length and width, children tell what the perimeter is.

Teach dollar and cent signs. Teach pt., qt., in., and ft. using measures in each case. Teach children to judge weights of things, as to which is heavier, lighter, etc.

Teach table of 2's, 3's, and 4's thoroughly.

Teach addition, subtraction, multiplication, and division signs.

Children skip to the board and write numbers correctly, especially the making of 3's, 5's, 6's and 9's.

Teach the simple combinations in addition as

$$\begin{array}{ccccccc} 9 & 8 & 9 & 7 & 8 & \\ 6 & 7 & 8 & 5 & 6 & \text{etc.} \\ \hline \end{array}$$

Teach addition of one and two columns and subtraction of two numbers across.

Send several children to the board to write quickly a word they know. Erase words and ask a child in his seat to name each child and tell the word he wrote. As,—"Mary wrote 'cow,'" "John wrote 'high.'"

Hold up one block (one of the larger ones in a set) have children find two or more blocks, the sum of whose volumes equals that of the given block.

Assign a value to one block in a set; have children give relative values of other blocks in the set.

Have children give the ratios existing between blocks of the same set. For example tell one row to get blocks two and three, then $\frac{2}{3}$ is the ratio of this block (holding up small one) to this block (holding up larger one) etc.

Send children to get any block; have them tell what they have, as "This is a four inch cube." "This is a six inch cylinder."

Have children give the perimeters of the various faces of the blocks.

Show children a block; have them find blocks equal to a certain part of the block as,—"Find blocks equal to one-half of this block" or "equal to ⅔ of this block," etc.

Write simple combinations on the board and have children give the sums.

Place rectangles of various commensurate sizes on the board. Give one a certain value, as eight. Then have children give value of others.

Have children give values of two or more combined.

Give combinations rapidly $\begin{matrix} 4 & 7 & 3 & 5 \\ 8 & 6 & 9 & 4 \end{matrix}$ etc. Table of 2's, 3's and 4's.

Tables using ½, ⅓, ¼, ⅔, ¾. As ½ of 24, 30, 18, etc. ¼ of 16, 20, 28, 36, 48, 44. ⅓ of 30, 21, 15, 39, etc.

Using blocks give ratios of 1 to 3, 3 to 1, 2 to 5, 5 to 2, etc.

Give the largest block in set the value 1, give relative values of others as ⅓, ¼, ¾, ⅚, etc.

Train eye to measure inch, foot, yard. Estimate measurements of objects in schoolroom, schoolyard, neighborhood, etc.

Draw lines on board of different lengths and have the class tell lines that are twice the length of A, ½ of A, etc.

Have class draw with rulers a 5, 10 or 6 inch horizontal line. Alsa vertical lines of various lengths. Let pupils erase and try to draw lines of the same lengths without rulers.

Have class judge how high the door is, how wide a window or a desk is. Then let them measure to test the results.

Have pupils estimate how much water an ordinary pail will hold. With a pint, quart, or gallon measure test result. Vary this exercise to include other measurements.

Ask class to look at a picture or other object in the room, and then describe what they saw.

Ear Training:

Let one child run into corner of room with back to children. Teacher points to some child at seat who says, "good morning" to one in the corner. Child in the corner answers "good morning" naming the one who he thinks has spoken to him.

Children place heads on desks. Teacher lightly touches one child, this child raps on his desk, then teacher calls on child in different part of room to point in direction from which the sound came.

Call row of children to front of room while children at seats observe and listen. Let each child in front skip across the room. Tell children at seats to place heads on desks, while teacher points to one of the children in front of room, to skip across the room. Then have children at seats tell who did the skipping.

Have pupils listen and tell what they hear, sounds near and far. Strike objects and have children tell difference in sound.

Train the ear by the fast calling of numbers, children to write them rapidly with no erasing.

Familiarize with the sound which different objects produce when

touched. Then tell them to put down their heads. Teacher touches several things in quick succession as,—edge of the desk, ink well, steam pipe, etc. Says, "Wake up." Pupil tells what was done in the right order, as,—"You tapped the book, the ink well, and then the steampipe."

Teacher performs several actions quickly, as,—opening and closing door, moving a table, opening and closing a window. Then pupils look up and tell quickly what was done and the order in which it was done.

Pupils at the board. Dictate four or five numbers. Pupils write quickly as,—8, 7, 6, 5, 4. This training is for ear as well as memory. Train in large numbers as,—6,384, 15,875, etc.

Pupils form a circle, teacher standing on the outside with a large rubber ball. Give each child a number as 6, toss the ball high so that it will come down in the center, saying four and two. Child whose number is 6, to catch the ball when it bounces up. No other child is to move from his place.

Repeat a short stanza of poetry and ask children to repeat what they remember.

Dictate a sentence and ask the class to write it.

Touch Training:

Call a row of children to table, have them close eyes, while teacher places some objects as cone, sphere, cube, cylinder, book, etc., in their hands. Have them feel object then tell what it is.

Call a row of children to table, have them close eyes, while teacher places block in each child's hands. Child feels block and with eyes closed tells dimensions and number of cubic inches in the block.

Ask the class to touch lightly some book in their desks and tell what it is without looking into their desks.

Ask class to feel of drawing paper. Have them distinguish between right and wrong side.

BRIEF OUTLINE AND SUGGESTIONS FOR ARITHMETIC

FIRST GRADE ARITHMETIC

The work consists largely of sense training. The caution to the teacher beginning this work: *Do not over-train any one sense.* Place solids of different kinds on table. Teach names of them as cubes, spheres, cylinders, etc. Pupils handle solids with closed eyes, learn names and compare them. Uncover eyes and find other solids like those handled.

Relative magnitudes.—Compare a solid with other solids. Compare objects with other objects. This is valuable work in language, touch and sight training combined.

Visualizing—begin by placing common objects on table. Have pupils observe. Teacher covers objects, pupils name from memory. This work of visualizing when combined with ear training and hand training is of great value in all work in arithmetic.

SECOND GRADE

Review of first grade work. Teach ratios or relations of pint and quart, foot and yard; perimeter of square and its relation to other squares; relation of gallon and quart; relation of gallon, quart and pint, etc. Many practical exercises in the last part of this work should be given.

THIRD GRADE

The work of this grade is along the same lines as the first and second grades, but much more difficult. Pupils observe, image, and write many problems and visualize all kinds of work from board such as,—letters, figures, sentences, etc.

INTERMEDIATE GRADES

The aim in all grades should be to secure accuracy and rapidity. It should constantly be impressed upon the pupils that less than complete accuracy is a failure and arithmetic is of no value except as it recognizes an absolute standard of accuracy. Emphasis should be placed first on accuracy and second on speed.

Answers should be given promptly. Pupils should not be allowed to waste time while reciting. Occasionally they should write answers on the board. Give written tests occasionally.

All work in fractions should deal with the small practical fractions. When studying multiplication tables, give many concrete problems involving work in these tables.

When teaching linear, square, or cubic measure, first present a unit for each table. In square measure the square inch is the unit. Show that a surface three inches by four inches will contain three rows of units, each row consisting of four units, making twelve units in all. Use blocks in introducing cubic measure, let children measure, also estimate with the eye and then measure to ascertain true measurements.

In the fourth grade the transition from the sense training problem to the less concrete number work is made.

In the fifth grade during the semester at least two recitation periods a week or the equivalent should be given to thought problems.

Half of the work for the sixth grade should consist of concrete mental problems. The problems should be practical and relate to the industries and interests of the community.

Problems of one type should be given each day until the principle is mastered. A great variety of problems illustrating the different applications of the principle taught must be given. These problems should then be given with problems involving other principles studied, so that the pupil can discriminate between the new and the familiar types.

Teachers in the intermediate grades, especially the fifth and sixth, must aid in bridging over the gap between the mental, oral work of these grades and the written, thought work of the seventh and eighth grades. They should be given many concrete thought problems, especially in the latter half of the sixth grade. Exercises in stating orally and in writing, problems, results, numbers, etc., should be given. Read problems occasionally and have pupils solve them mentally. Vary the

work so that the change from oral mental work to the written work of the upper grades will be gradual.

UPPER GRADES

Teachers in the seventh and eighth grades must make themselves familiar with the work of the intermediate grades and must make use of the skill in numbers which the pupil has when he comes to them.

Pupils in the grades should add, subtract, multiply, divide, and compute with the same speed and accuracy as that of the intermediate grades. Pupils must attack written problems vigorously and intelligently. They should not be allowed to compute with pencil when problems can be done mentally. Allow pupils time to think out the problem, but when this is done, make the computations with the greatest possible speed.

The text-book needs to be both pruned and supplemented. Omit the nonessential and supplement the essential. Give many practical problems especially those which spring from the life of the community.

BULLETIN NO. 9

STATE OF MICHIGAN

DEPARTMENT OF PUBLIC INSTRUCTION

LANGUAGE OUTLINE

Prepared by Miss Sara M. Nicholson, Supervisor of English in the Grades of Ironwood, Michigan.

It is the aim to have the language development of the first seven years consist almost exclusively of oral work. Children who can express themselves well orally will have little trouble with later written work. To fill grade courses of study with the technicalities of grammar will avail little if the practical development of oral language is neglected. It is of little use to ask a child to write compositions on subjects of which he has no definite knowledge. Let him first get and arrange ideas, and then express them orally, with system, and with a good choice of words and mastery of sentence construction.

Back of the work of developing the power of expression lies the teacher's first mission, which is that of putting the child in possession of the right kind and knowledge to express. This throws the weight of language development on selection. It is not in the manufactured lessons, cut and patterned to the dead level of the ordinary and the obvious, that we shall find that inspiration that will stir the remote recesses of child-nature to its highest development. From the first grade the materials must be gathered from the very choicest of the best works of all time, in literature, history, art, and nature. Of these, such as make the highest appeal to the imagination and emotions should be selected. From music and musician, from art and artist, from poet, novelist, historian, naturalist,

and should be centered about Romulus, Julius Caesar, Caesar Augustus, Diocletian, and Constantine. In American history in this grade, the story of the Civil War should be taught. In the seventh grade, English history should be taught.

While it is not intended that the language work will include history teaching, it will draw largely from that source. The history work itself cannot be confined entirely to story-telling, but must be definite, connected, and real. That the work is made pleasant, picturesque, and varied, does not imply for a moment that it is not, after all, work in every sense of the word, and work whose success depends on thoroughness, and minute attention to details. The use and making of maps and the development of the important, connected matter, so that it will stand out in true relief from the background of story, is the work of history teaching. Language teaching draws more largely from the story side of the subject.

There are in history many opportunities for description also, and no effort should be spared to secure good pictures of places, incidents, persons, and times studied. These should be in constant use in connection with the work.

Literature is such a broad subject with so much that is excellent from which to select, that it is impossible to make definite outlines that will include or exclude selections arbitrarily. Much of the necessary matter will be found in the classics, the stories of Homer and Shakespeare, the stories that form the material of the great epics, dramas, and operas, the classical mythology of the Greeks and Romans, the Norse and German legends, etc. There is much in up-to-date literature that must not be overlooked, but infinite care should be exercised in discriminating between the fit and the unfit. But with Dickens, Stevenson, Hawthorne, Poe, Scott, Eliot, Ruskin, Kipling, Kingsley, and others from whom to draw, there is no limit of material.

Throughout the grades the poems of Wordsworth, Longfellow, Tennyson, Bryant, the Brownings, Whittier, Keats, Shelley, Riley, Field, Stevenson, Lang, should become familiar to every child. He should know and cherish them as a part of his own intellectual being.

Much of the success of poem-teaching depends on the appreciation, and personality and power of the teacher, and yet, any teacher may develop the power that comes of sympathy, appreciation and enthusiasm, if she will. She can soon learn to render the poem with feeling and dramatic effect that will react upon the expression of her pupils.

No verse should be memorized which does not contain some element of greatness, and which is not poetry in the true sense of the word, both in music and in sentiment. No mere verse should be taught because it happens to contain a historical fact or fancy, a story or a thought that can be as well expressed in prose. We cannot inspire appreciation of poetry by teaching rhymes and jingles, or even fairly good verse. School-life is concerned with too short a period of time in which to deal with anything but the highest and best of the conceptions of life.

The poem should be taught line by line, thought by thought, with somewhat exaggerated expression. Much time and attention should be given to the development of tones and the pitch of the voice, that the musical effect may be obtained. Articulation, enunciation, and pronunciation should be carefully drilled upon, corrected, and kept to a high

ly, and dramatically. She should know her story thoroughly, and have it well rehearsed before she tells it to the class. She should require pupils to retell it, and have the stories repeated occasionally, until they become in reality a part of their own intellectual and moral make-up. If she appreciates the story, the children will likewise appreciate it. Obviously, the work of selection is a serious matter. The material must be arranged and graded so that there will be uniform succession and growth of knowledge and power.

Have the children study the new words as to meaning and use. Let them keep lists of these new words, and use them in sentences in frequent drills.

Watch carefully the sentence construction in story-telling. Accept no sentence which is not correct and complete.

Never allow children to string along sentences, connecting them by a succession of "ands." Stop the story immediately, but with tact. Require each sentence to be sharply distinctive, round, and orderly as to arrangement.

Insist on clear articulation, distinct enunciation, and correct pronunciation.

Aim to have the children acquire well-modulated, pleasing voices. A story will not give pleasure if it is told in a rough, harsh, or rasping voice. Cultivated tones are quite as important as correct language.

Never allow a loosely-constructed, carelessly-arranged sentence to go unchallenged. Watch the tendency to run words into one another, or to drop the final consonant.

Use only the stories collected and classified for the grade. Never allow pupils to select their own stories. Every story in the lower grades should first be told by the teacher.

Place on the board lists of words to be used in the retelling of stories. Insist that they be used in the exact sense. Encourage the use of new words.

Pupils may be trained in a variety of ways to add to their vocabularies and discriminate in their choice of words. Put the word "walk" on the board and let them make a list of all the words that may be used to express the same movement, as trot, amble, pace, strut, jog, glide, perambulate, stride, stroll, canter, gallop, etc.; or the word "talk," chatter, gossip, report, rumor, conversation, dialogue, monologue, dialect, discourse, chat, hearsay, lingo, vernacular, conference, discussion, etc.; or "price," cost, value, charge, valuation, estimation, worth, appraisal, expense, etc.; or "childish," silly, puerile, juvenile, immature, weak, etc.; or "gloomy," dark, shady, dusky, obscure, dismal; also morose, sorrowful, cheerless, sullen, depressed, acrimonious.

History in these grades should be drawn upon for language material. The history work should center about great characters, and should be so distributed throughout the grades that it will yield a broad general knowledge of the world's history. In the first four grades, stories of American history should be supplemented by the myths and legends of the Indians, and the Norse legends.

In the fifth grade the Greek myths, and the stories of the Iliad and Odyssey, as well as the history of early Greece centered about such characters as Pericles, Timon of Athens, Alexander the Great, should be used. In the sixth grade, Roman mythology and history should be used,

and should be centered about Romulus, Julius Caesar, Caesar Augustus, Diocletian, and Constantine. In American history in this grade, the story of the Civil War should be taught. In the seventh grade, English history should be taught.

While it is not intended that the language work will include history teaching, it will draw largely from that source. The history work itself cannot be confined entirely to story-telling, but must be definite, connected, and real. That the work is made pleasant, picturesque, and varied, does not imply for a moment that it is not, after all, work in every sense of the word, and work whose success depends on thoroughness, and minute attention to details. The use and making of maps and the development of the important, connected matter, so that it will stand out in true relief from the background of story, is the work of history teaching. Language teaching draws more largely from the story side of the subject.

There are in history many opportunities for description also, and no effort should be spared to secure good pictures of places, incidents, persons, and times studied. These should be in constant use in connection with the work.

Literature is such a broad subject with so much that is excellent from which to select, that it is impossible to make definite outlines that will include or exclude selections arbitrarily. Much of the necessary matter will be found in the classics, the stories of Homer and Shakespeare, the stories that form the material of the great epics, dramas, and operas, the classical mythology of the Greeks and Romans, the Norse and German legends, etc. There is much in up-to-date literature that must not be overlooked, but infinite care should be exercised in discriminating between the fit and the unfit. But with Dickens, Stevenson, Hawthorne, Poe, Scott, Eliot, Ruskin, Kipling, Kingsley, and others from whom to draw, there is no limit of material.

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The poem should be taught line by line, thought by thought, with somewhat exaggerated expression. Much time and attention should be given to the development of tones and the pitch of the voice, that the musical effect may be obtained. Articulation, enunciation, and pronunciation should be carefully drilled upon, corrected, and kept to a high

standard. The expression should reveal the meaning and the spirit and power of the poem. It should be rendered musically and sympathetically, and never permitted to drag or become monotonous. There is no other way in the world by which a full, rich, pure vocabulary can be acquired as satisfactorily as in the memorizing of poems. There are few better ways of inculcating the sentiments that make for high character, and no better way of expanding the emotions. Loyalty, sympathy, faith, hope, ambition, and like qualities, respond quickly to the influence of poetry. If rightly taught, it becomes a power in the lives of the children for all time, and a treasure for future years, as well as a high form of culture.

In every grade there should be a line of description work that defines common objects, and describes them in terms which individualize them, as, "A window-screen is a network of fine wires, crossed and recrossed at right angles, woven closely, and stretched on a light, wooden frame, which is fitted to a window, for the purpose of keeping out flies, mosquitoes, etc."

Describe such objects as a pin, a door-knob, a needle, a shingle, a broom, a chair, a ski, a skate, a snow-shoe, a shoe, a room, furniture of a room, a blizzard, a visit to a mine, a shopping trip, a visit to a mill.

The danger of the work in description lies in its possibility of becoming mechanical rote-work. Develop the description by having pupils suggest and select the most fitting words, and eliminate all unnecessary terms and words. Then let one pupil summarize the description. The work may be developed in the following manner.

The teacher holds up a plate, and then puts it out of sight. She calls on different pupils to name its qualities, and gets the words, *smooth, circular, flat, concave, hard, china,* etc., and then calls upon one or two pupils to state the description in a few words. Through this work, the children should acquire facility in the use of words, and the power of seeing clearly things of which they hear and read, and of making others see vividly that which they describe. Discrimination must be exercised in omitting superfluous details and emphasizing distinguishing characteristics.

Copies of the best pictures are to be had so easily, and at a nominal cost, that it is quite possible for every class in every school to have a large supply of small mounted copies, so that a copy of each picture studied may be in the hands of each pupil. At least two artists should be studied in each grade during the year, and the pupils should know their works by their salient characteristics. They should be enabled to describe the pictures intelligently, and with appreciation of broad, artistic qualities as well as subject matter.

Each week a certain amount of written work, dictation, etc., should be included in the spelling exercises. This work should develop the use of punctuation marks, quotation marks, capitals, abbreviations, dates, the possessive forms of nouns and pronouns, etc. Have all poems that are studied, carefully copied in note-books. Letter-writing, including social and business forms, should, of course, be taught throughout the grades beginning with the second. Very little written work should be exacted, but the papers that are done should be models of neatness and accuracy.

In the second, third, and fourth grades, have weekly letters written to

parents, friends, or children in other schools, telling interesting things of school and home life, giving descriptions, etc.

In the fifth, sixth, and seventh grades develop business forms, as applications for positions, subscriptions for papers or magazines, invitations, acceptances, regrets, also letters of condolence, thanks, etc.

Have poems written from memory occasionally, and have prose selections copied carefully from time to time.

A portion of every day's work in each grade should consist of drills on irregular verbs. Select lists of verbs from daily lessons and conversations, and place the principal parts on the board, as,

leave	left	left
bring	brought	brought

and have the children use them in sentences. Keep the drills up in rapidity, interest, and brightness. Throughout all the grades keep up the drill on such verbs as shall, will, lie, lay, sit, set.

Have daily drills also in the use of adjectives and adverbs. It is to be remembered that these drills are to be on the *use* rather than on the *names* of adjectives and adverbs.

Place lists of words on the board and use in sentences, as,

calm	calmly
quick	quickly
heavy	heavily
savage	savagely
fierce	fiercely
light	lightly
soft	softly
splendid	splendidly

Give drills on the use of comparatives:

good	better	best
bad	worse	worst
well	better	best
many	more	most
few	fewer	fewest
beautiful	more beautiful	most beautiful

Give drills in all grades on the correct use of personal pronouns. Use in narratives, descriptions, conversations, and sentences, until correct use becomes mechanical and a fixed habit.

He is the man of whom I spoke.

It is I.

Was it she? To whom did you tell it?

SUGGESTIVE OUTLINE OF LANGUAGE WORK FOR APRIL

FIRST GRADE

Poem Study:

"The Wind," Christina Rossetti.
"The Wind," Robert L. Stevenson.
"The Baby," George MacDonald.
"The Rock-a-By Lady," Eugene Field.
"Foreign Children," Robert L. Stevenson.

Description:

A square, a cube, a ruler, an Easter-lily, a button, a robin.

Stories:

One Eye, Two Eyes, and Three Eyes.
Hop O' my Thumb.
Beauty and the Beast.
The White Cat.
The Ugly Duckling.
The Six Swans.
Stories from Lang, Andersen, etc.

Nature:

Plant seeds of flowers, vegetables, grains, and watch growth and development. Gather pussy-willows and watch development. Look for birds and learn their names. Compare with bird-plates.

SECOND GRADE

Poem Study:

"Lady Moon," Houghton.
"Ariel's Song," Shakespeare.
"Lullaby," Christina Rossetti.

Nature:

Watch and record the growth of seeds planted. Collect and study pussywillows. Record lists of birds seen and heard. Describe them. Describe their songs, nests, habits, colors, size, bill, etc. Make collections of the flowers, grasses, leaves, etc., of the locality, and name and distinguish each. Tell something of the places in which they grow, soil, moisture, light, heat, etc.

Description:

Some typical flower of the locality. A typical tree. A bird. Clay. Loam. A cylinder. A frog. A needle. A pin. A spool. A pencil.

Stories:

Benjamin Franklin. Dante. Pippa. Selections from "Fifty Famous Stories." Stories from "Hiawatha." Romulus and Remus. Aesop's Fables. Stories from the North Sea.

THIRD GRADE

Poem Study:

"Hiawatha's Childhood," Longfellow.
"A Norse Lullaby," Eugene Field.
"A Fable," R. W. Emerson.
"Little Boy Blue," Eugene Field.

Stories:

Parsifal, Siegfried, Margaret from Faust, Robert Fulton, Thomas Edison, Eli Whitney, Phillips Brooks.
"Little Pip" by Dickens.
Stories of Colonial Days.

Nature:

Observe and record growth of flower-seeds, vegetable-seeds, grains, etc. Collect flowers, grasses, leaves, bark, and distinguish each. Keep records of the birds of the neighborhood. Note song, appearance, habits, nests, and compare observations with charts. Study conditions of soil, heat, moisture, light, etc.

Descriptions:

How a bird builds its nest. How a bird flies. How rain falls. How snow falls. How the squirrel gathers nuts. How a cat washes its face.

Describe: A circus parade. A fire.

Visualize many simple objects rapidly and describe, as, a pin, a pencil, a piece of chalk, a card, a box, a string.

FOURTH GRADE

Poem Study:

"Daybreak," H. W. Longfellow.
"The Day is Done," H. W. Longfellow.
"The Rainy Day," H. W. Longfellow.
"The Shepherd of King Admetus," Lowell.
"The Neckan," Matthew Arnold.

Stories:

Joe's First Story, from "Little Women."
The Besieged Castle, from "Ivanhoe."
Rip Van Winkle.
Two Little Runaways by Kate Douglas Wiggin.

Siegfried. Thor in the Land of Giants. The Death of Baldur. The Binding of Fenrir. The Great Stone Face. Alice and the Two Queens. Dog of Flanders.

Stories of the Revolution: Boston Tea Party, Crossing the Delaware, etc., Washington, Nathan Hale, Adams, Arnold, etc.

Description:

The making of a horse-shoe. How a boat is made. How a shingle is made. A cellar excavated. A house built.

Describe a cylinder, a prism, a link of stovepipe, a smokestack. Name the verbs and adverbs that best describe the movements of light, snow, rain, heat, a cat, a lion, an automobile, an arrow, a breeze, a cyclone, a river, a waterfall. Describe the sound of a train, a whistle, a wagon,

thunder, a mill, a bell, the rain, the wind, a river, a waterfall, etc. Describe the sensation of feeling in touching a fur hat, a piece of silk, butter, water, a piece of wood, a box of sand, flour, velvet, leaves, etc. Describe the odor of onions, cake-baking, fresh bread, violets, a swamp, pine, cedar, an orange. There is at least one distinctive word which best describes each sensation. Try to develop the right word for the right sensation, substance, or sound. Give verb, adverb, and adjective drills each day.

Nature:

Same as previous grades. Keep lists of birds and compare the observations with charts. Learn more of the habits of the birds from various sources.

Study the habits of the squirrel, chipmunk, porcupine, or other wild animals of the neighborhood. Describe.

Collect, distinguish, and describe flowers, grasses, bark, leaves, and buds.

Study the soil in which native plants thrive, also conditions of light, moisture, heat, etc.

FIFTH GRADE

Poem Study:

"The Sands O' Dee," Chas. Kingsley.
"O Captain, my Captain," Walt Whitman.
"To a Waterfowl," Bryant.
"Children," Longfellow.

Stories:

Wanderings of Ulysses. Return of Ulysses. Perseus and Andromeda. Jason and the Golden Fleece. Hercules and the Golden Apples. Stories of the Trojan War, Helen, etc. The King of the Golden River. The Nurnberg Stove.

Descriptions:

How a chain is made.

How pig iron is made.

How a kite is made, and how it sails.

How frost is formed. How moisture forms on the ice-water pitcher, and why. Why smoke rises, and how.

Describe the sound of wind in the chimney, skating on ice, the carpenter's hammer, walking on leaves, tearing cloth, tearing paper.

Describe the smell of a bakery, a fruit store, a grocery store, coffee, the taste of salt, sugar, lemon, pepper, mustard.

Describe the feeling of an apple, an orange, grass, bark, oil, ice.

Describe: The movement of a ball in the air. The movement of a buggy over a rough road. The motion of a cow walking down the road. A horse racing. A leaf in the wind. A boat on the water. Leaves on a tree.

Visualize quickly a great many objects, and name their characteristic qualities, as, a plate—*circular, smooth, round, concave.* A picture, its color, subject, general impression.

FIFTH AND SIXTH GRADES

Nature:

See Fourth Grade Outline.

Try to make a complete collection of the flowers, grasses, buds, leaves, bark, and woods of the locality.

Make a list of native birds. Find out everything possible of each.

Make a list of native animals. Study at least one, as to habits, appearances, etc.

SIXTH GRADE

Poem Study:

"The Shell," Tennyson.
"Sir Galahad," Tennyson.
Prelude to "Hiawatha," Longfellow.
"Break, Break, Break," Tennyson.
"Ode to a Skylark," Shelley.

Stories:

Julius Caesar, Caesar Augustus, Mark Antony, Battle of Philippi, Battle of Actium, The Triumvir, Conditions of Roman life, and government of the times. Use pictures, descriptions, etc.

Other Stories: Jean Valjean, Jean Francois Millet, Jean Baptiste Corot, The Blue Flower—Van Dyke, The Call of the Wild—London.

Descriptions:

Describe a piece of silk ribbon, a candle-stick, a pair of curtains, a rug; the making of a tabouret; the making of a loaf of bread, and give a statement of the underlying principles. Tell why a fly can walk on the ceiling. Investigate and explain other principles underlying phenomena of everyday observation.

Explain the process of making cement for concrete buildings. Describe a steam-shovel at work. Describe the sound of a robin's song, an automobile, falling bricks, loading an ore-car, a steam-shovel, a hail-storm.

Describe the smell of vinegar, raspberries, a damp cellar, an orange, candy-making, roses. Describe the taste of pickles, sardines, cheese. Describe the feeling of water, oil, paper, sugar, a cat, marble.

SEVENTH GRADE

Poem Study:

"When Earth's Last Picture is Painted," Kipling.
"Work," Van Dyke.
"Ode to a Grecian Urn," Keats.
Selections from "Lucy," Wordsworth.
"My Lost Youth," Longfellow.

Stories:

Beowulf, Arthur and his Sword, Excalibur, The Quest of the Holy Grail, Launcelot and Elaine, The Death of Arthur, Owain and the Lady of the Fountain, English History Stories.

Descriptions:

A spring in the rocks.

A bluff—its location, shape, vegetation, soil and rocks which compose it.

A river-bed—earth and rock which compose it.

The different minerals of the neighborhood.

A bird's nest. A tree. A flower. A leaf. A vine.

Tell how iron-ore is obtained. How paper is made. How a railroad is laid. How ties are made for railroads. How a bird builds its nest.

Explain how an electric car runs. How water freezes. A snowstorm. A cyclone.

Describe the motion of grass in the wind, trees in the wind, a saw cutting wood, a horse running, birds flying, water—river, falls, spring, etc.

Describe the sound of music, a child crying, a woman scolding, a chimney falling.

Describe the taste of a peach, a lemon, a cherry, an almond.

Visualize rapidly and state characteristics of many objects as, an egg, a top, a picture, a pitch-pipe, a candle-stick, a flower, a vase, a glove, a book.

Let the pupil merely see the object at a glance and then describe it, as, "An egg is an ovoid in shape. It is creamy in color, oval in outline, smooth and opaque." "This candle-stick is of brass. It is composed of a short cylindrical holder fixed to a flat, circular base. It has a curved, semi-circular handle attached to a base and holder. The top of the holder has a circular, flat, projecting edge."

What words best describe the motion of a feather in the wind, a lake's surface stirred by the wind, a snake, a squirrel, a frog, a river flowing down hill, a boat, a kite, smoke rising, a ball flying through the air?

What words best describe the following: the silence of midnight; nuts falling from the trees; the lake's surface; the grass in early spring; the bare branches of the trees; the air after rain; a sand hill; (sound) walking on gravel, mud, clay, dry leaves; a dog gnawing a bone; a hand-organ; scolding; laughing; sighing; a whistle; (taste) baking powder, lemon, vinegar?

Much of the description of sound, taste, smell, touch, etc., must be accomplished through the use of comparisons and similes.

In describing such qualities as the odor of an onion, develop the adjectives *strong, pungent;* of coffee *aromatic, fragrant;* of the noise of a bird flying swiftly, *whirr,* etc.

A quality may often be described by showing its likeness to something else. In fact, many qualities may be described only in this way. Others may be shown by comparison.

Exercises that demand a visualizing of the thing or quality described should be used. The work requires life, interest, use of imagination, vivid visualization, and a sense of the meaning of words, to make it vital and profitable.

BULLETIN NO. 36

STATE OF MICHIGAN

DEPARTMENT OF PUBLIC INSTRUCTION

Lansing, February 1, 1911.

To the Teachers of Rural Schools:

This bulletin contains lists of free publications of the United States Department of Agriculture and of the Michigan Experiment Station, East Lansing, and the free bulletins published by this Department; also names of books on agriculture. The lists have been prepared with the needs of the rural schools in mind. The problem of how to secure some agricultural instruction for rural schools must be met. Economic and social conditions demand that these schools fit the boys and girls for farm life. The publications contain valuable information. It is hoped that teachers will avail themselves of the opportunity to obtain them.

Very truly yours,
L. L. WRIGHT,
Superintendent of Public Instruction.

FREE PUBLICATIONS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE

The following bulletins are selected as those most helpful to rural teachers. Requests for these publications should be addressed to the Secretary of Agriculture, Washington, D. C. A complete list of publications may also be obtained upon application.

EDUCATIONAL

No. 60. The Teaching of Agriculture in the Rural Common Schools.
No. 73. Country Life Education.
No. 96. How to Test Seed Corn in School.
No. 218. The School Garden.
No. 408. School Exercises in Plant Production.
No. 409. School Lessons on Corn.
No. 423. Forest Nurseries for Schools.
No. 96. Arbor Day.
No. 382. The Use of Illustrative Material in Teaching Agriculture in Rural Schools. (1905)
No. 471. The Weather Bureau and the Public Schools. (1907)
No. 134. Tree Planting on Rural School Grounds.
No. 155. How Insects Affect Health in Rural Districts.

No. 157. The Propagation of Plants.
No. 185. Beautifying the Home Grounds.
No. 195. Annual Flowering Plants.
No. 270. Modern Conveniences for the Farm Home.
No. 385. Boys' and Girls' Agricultural Clubs.
No. 17. Bird Day in the Schools.
No. 443. Does it Pay the Farmer to Protect Birds?
No. 457. Hygienic Water Supplies for Farms.

PLANT PRODUCTION

No. 35. Potato Culture.
No. 52. The Sugar Beet.
No. 132. Insect Enemies of Growing Wheat.
No. 192. Barnyard Manure.
No. 199. Corn Growing.
No. 229. The Production of Good Seed Corn.
No. 245. The Renovation of Worn-out Soils.
No. 250. The Prevention of Stinking Smut of Wheat and Loose Smut of Oats.
No. 253. The Germination of Seed Corn.
No. 257. Soil Fertility.
No. 289. Beans.
No. 306. Dodder in Relation to Farm Seeds.
No. 323. Clover Farming on the Sandy Jack-pine Lands of the North.
No. 339. Alfalfa.
No. 382. The Adulteration of Forage-plant Seeds.
No. 383. How to Destroy English Sparrows.
No. 99. Three Insect Enemies of Shade Trees.
No. 113. The Apple and How to Grow it.
No. 154. The Home Fruit Garden: Preparation and Care.
No. 156. The Home Vineyard, with Special Reference to Northern Conditions.
No. 181. Pruning.
No. 198. Strawberries.
No. 213. Raspberries.
No. 220. Tomatoes.
No. 231. Spraying for Cucumber and Melon Diseases.
No. 248. The Lawn.
No. 255. The Home Vegetable Garden.
No. 124. The San Jose Scale and Its Control.
No. 433. Lime-sulphur Washes for the San Jose Scale. (1906)
No. 452. The Rabbit as a Farm and Orchard Pest. (1907)

ANIMAL PRODUCTION

No. 22. The Feeding of Farm Animals.
No. 170. Principles of Horse Feeding.
No. 51. Standard Varieties of Chickens.
No. 64. Ducks and Geese.
No. 200. Turkeys.
No. 236. Incubation and Incubators.
No. 287. Poultry Management.

AGRICULTURAL TECHNOLOGY

No. 106. Breeds of Dairy Cattle.
No. 355. A Successful Poultry and Dairy Farm.
No. 413. The Care of Milk and Its Use in the Home.

AGRICULTURAL ENGINEERING

No. 126. Practical Suggestions for Farm Buildings.
No. 235. Preparation of Cement Concrete.
No. 347. The Repair of Farm Equipment.
No. 187. Drainage of Farm Lands.

AGRICULTURAL ECONOMICS

No. 62. Marketing Farm Produce.

GENERAL AND SPECIAL TOPICS

No. 86. Thirty Poisonous Plants.
No. 183. Meat on the Farm: Butchering, Curing and Keeping.
No. 188. Weeds Used in Medicine.

MICHIGAN EXPERIMENT STATION FREE BULLETINS

Make request for bulletins by number to R. S. Shaw, Director, East Lansing, Michigan.

REGULAR BULLETINS

No. 179. Sugar Beet Investigations.
No. 188. Experiments with Sugar Beets.
No. 191. Shrinkage of Farm Products.
No. 193. Some Experiments with Beet Pulp as a Stock Food.
No. 199. Cowpeas, Soy Beans and Winter Vetch.
No. 209. Vegetables and Bush Fruits.
No. 218. Some Essential Soil Changes Produced by Micro-Organisms.
No. 222. The Codling Moth in Michigan.
No. 225. Alfalfa in Michigan.
No. 230. Some Bacterial Diseases of Plants, Prevalent in Michigan.
No. 233. Insects of the Garden.
No. 240. Roots Supplementary to Silage for Dairy Cows.
No. 242. Feeding Whole Grain.
No. 243. Cull Beans as a Food for Swine.
No. 244. Insects New or Unusual in Michigan.
No. 245. Poultry Raising.
No. 246. The Practical Use of Starters.
No. 251. Insects of 1907.
No. 255. Cement Silos in Michigan.
No. 257. Rearing Calves on Skim-Milk and Supplementary Feed.

No. 258. Insects of Field Crops.
No. 259. Bean Production.
No. 260. Seeds of Michigan Weeds.
No. 261. Baby Beef Production.
No. 262. Suggestions on Planting Orchards.

SPECIAL BULLETINS

No. 11. Frozen Trees and Their Treatment.
No. 24. Insects Injurious to Fruits in Michigan.
No. 42. Bacterial Associations in the Souring of Milk.
No. 47. Corn Improvement.
No. 52. Corn Production in the Upper Peninsula of Michigan.
No. 54. Spray and Practice Outline for Fruit Growers.

CIRCULAR BULLETINS

No. 1. Alfalfa.
No. 2. The Babcock Test.
No. 3. Corn, Selecting, Storing, Curing and Testing for Seed.
No. 8. Tuberculosis.
No. 9. Vinegar and Its Making.
No. 10. Manufacture and Storage of Lime-sulphur Sprays.

BULLETINS PUBLISHED BY THE DEPARTMENT OF PUBLIC INSTRUCTION

Free upon application

No. 2. Industrial Training.
No. 5. Drawing in the Rural Schools.
No. 6. Suggestions for Teaching History.
No. 7. Arithmetic Teaching.
No. 8. Township Unit System.
No. 9. Language Outline.
No. 10. A Study of School Gardens.
No. 11. A Study of School Grounds.
No. 12. High School Course of Study.
No. 15. Compulsory School Law.
No. 16. Teachers' Examination Outline.
No. 25. Rural High Schools.
No. 26. A Study of Corps.
No. 27. A Study of Soils.
No. 28. A Study of Horticulture.
No. 30. School Architecture.
No. 31. Special Day Exercises.
No. 33. Language Teaching.
No. 34. Sense Training.
No. 35. Michigan Special Days.

BOOKS ON AGRICULTURE FOR RURAL SCHOOLS

Prices may be obtained by writing the publishers

Agriculture through Laboratory and School Gardening by Daugherty ..... Orange Judd Co.
First Book of Forestry by Roth ..... Ginn & Co.
First Principles of Agriculture by Voorhees..... Silver, Burdett & Co.
Domestic Science in Grammar Grades by Wilson.. Macmillan Co.
Elementary Agriculture by Hatch & Haselwood.. Row, Peterson Co.
Rural School Agriculture by Davis ..... Orange Judd Co.
First Principles of Agriculture by Goff & Mayne.. American Book Co.
Agriculture for Beginners by Burkett, Stevens & Hill ..... Ginn & Co.
The First Book of Farming by Goodrich ..... Doubleday, Page & Co.
First Studies of Plant Life by Atkinson ..... Ginn & Co.
Nature Study for Primary Grades by Cummings.. American Book Co.
Manual of Practical Farming by McLennan ..... Macmillan Co.
An Introduction to Agriculture by Upham ..... D. Appleton & Co.
Farm Friends and Farm Foes by Weed ..... D. C. Heath & Co.
Ornamental Gardening for Americans by Long.. Orange Judd Co.
The Farmstead by Roberts ..... Macmillan Co.
How to Keep Hens for Profit by Valentine..... Macmillan Co.
Agriculture for Common Schools by Fisher & Cotton ..... Chas. Scribner's Sons.
Nature Studies on the Farm by Keffer ..... American Book Co.
Wild Flowers Every Child Should Know by Stack ..... Orange Judd Co.
Garden Making by Bailey ..... Macmillan Co.
School Needle-work by Hapgood ..... Ginn & Co.
Manual Training for Common Schools by Allen.. Chas. Scribner's Sons.

BULLETIN NO. 37

STATE OF MICHIGAN

DEPARTMENT OF PUBLIC INSTRUCTION

COMMON MICHIGAN BIRDS WITH SOME NOTES ON THEIR HABITS

BY WALTER B. BARROWS

Professor of Zoology and Geology, Michigan Agricultural College

It is not easy to say just how many kinds of birds can be fairly called common in this state for more than 330 species have been recorded and while sixty or more of these are so rare as to have been taken only a few times, and as many more are very seldom seen, yet at least 150 species occur regularly in some numbers and almost everyone of them is common at some time and place. In selecting a list of seventy-five common birds I have aimed therefore to include only those which are found regularly almost everywhere throughout the state, in suitable places and at proper times. Of course gulls, bitterns and ducks must not be looked for in waterless regions nor can we expect to find swallows, flycatchers and hummingbirds during the colder parts of the year.

With the exception of a few species, the green heron, Baltimore oriole, field sparrow, wood thrush, and perhaps the bobolink, every bird in the list may be found commonly at any suitable point in the state, and all but a dozen or so nest regularly wherever found. The principal exceptions to this statement are the sapsucker, junco, white-throated sparrow, brown creeper, hermit thrush, and certain warblers which seem to prefer northerly nesting places and are seldom found in the southern half of the lower peninsula except during migration.

The dates of arrival and departure, unless otherwise specified, relate to the vicinity of Lansing, Ingham County; spring arrivals in Monroe or Berrien Counties might average five or six days earlier, while for the Straits of Mackinaw they would be decidedly later. The greatest difference occurs however in the case of the earliest migrants, the latecomers, like the nighthawk and wood pewee, moving very rapidly over the last stages of their journey.

The writer will be glad to receive notice of any mistakes, inaccuracies or errors of any kind which may appear in this article. The necessity for brevity of course has compelled the omission of numberless interesting facts which will be all the more valuable if readers discover them for themselves.

No apology is made for omitting the scientific names, but it has been the intention to mention all the common names by which each bird is known, and the writer will be greatly indebted to anyone for additional specific information along this line, and so far as time permits he will be glad to give information in regard to birds or bird books to any who are in doubt.

SEVENTY-FIVE COMMON BIRDS

1. Herring Gull
2. Bittern
3. Great Blue Heron
4. Green Heron
5. Coot; Mud-Hen
6. Spotted Sandpiper
7. Killdeer
8. Ruffed Grouse
9. Mourning Dove
10. Marsh Hawk
11. Cooper's Hawk
12. Red-shouldered Hawk
13. Sparrow Hawk
14. Screech Owl
15. Yellow-billed Cuckoo
16. Black-billed Cuckoo
17. Kingfisher
18. Downy Woodpecker
19. Sapsucker
20. Red-headed Woodpecker
21. Flicker
22. Nighthawk
23. Chimney Swift
24. Hummingbird
25. Kingbird
26. Phoebe
27. Wood Pewee
28. Prairie Horned Lark
29. Blue Jay
30. Crow
31. Bobolink
32. Cowbird
33. Red-winged Blackbird
34. Meadowlark
35. Baltimore Oriole
36. Bronzed Grackle
37. Goldfinch
38. English Sparrow
39. Vesper Sparrow
40. White-throated Sparrow
41. Chipping Sparrow
42. Field Sparrow
43. Junco; Snowbird
44. Song Sparrow
45. Chewink; Towhee
46. Rose-breasted Grosbeak
47. Indigo Bird
48. Scarlet Tanager
49. Purple Martin
50. Barn Swallow
51. Tree Swallow
52. Bank Swallow
53. Cedar-bird
54. Migrant Shrike
55. Red-eyed Vireo
56. Black and White Warbler
57. Yellow Warbler
58. Black-throated Blue Warbler
59. Myrtle Warbler
60. Magnolia Warbler
61. Chestnut-sided Warbler
62. Black-throated Green Warbler
63. Ovenbird
64. Maryland Yellowthroat
65. Redstart
66. Catbird
67. Brown Thrasher
68. House Wren
69. Brown Creeper
70. White-breasted Nuthatch
71. Chickadee
72. Wood Thrush
73. Hermit Thrush
74. Robin
75. Bluebird

1. Herring Gull; Common Gull; Harbor Gull; Gray Gull; Big Seagull. Commonest of the large gulls and the one usually seen about lake ports and harbors during the colder half of the year, but may occur at any time. During migration it sometimes visits inland ponds and streams and is then seen wheeling slowly over the water in search of fish or other animal food. Builds a bulky nest of grass, weeds, and other rubbish on rocky or sandy shores, commonly on islands, and lays three or four heavily spotted eggs.

2. Bittern; Stake-driver; Indian Hen. A wading bird the size of a hen, but with longer legs and neck, and brown plumage marked with buff and black. The green legs, yellow eyes and brown plumage make

this species unmistakable. Its common names Stake-driver, Thunder-pump and Bog-bull, all relate to its resonant notes which perhaps most often resemble the repeated strokes of a heavy wooden mallet driving a stake. It is found oftenest in very wet ground where it walks slowly about in search of frogs, fish and insects, or stands silently watching until some of these come within reach. Its nest is placed flat on the ground or on a low tussock, and the eggs are four, pale olive-brown, usually without spots. This species offers a remarkable illustration of protective coloration, its plumage blending so perfectly with the surrounding marsh vegetation that the bird is well nigh invisible even when standing fully exposed.

3. THE GREAT BLUE HERON. (Often miscalled the "Blue Crane.") The largest and probably the most frequently seen of any of our herons. Feeding largely by night it is active mornings and evenings and may be seen quietly watching or slowly walking along the edge of pond or stream at almost any hour of the day. Its long legs and neck give it a height of nearly five feet and it is so wary as to be approached with difficulty. Frogs, fish, snakes, insects and meadow-mice form the principal food. In April or May its bulky nest of twigs and sticks in the top of a lofty swamp tree contains four beautiful blue unspotted eggs as large as a turkey's.

4. GREEN HERON; FLY-UP-THE-CREEK. Smallest of the family (except for the Least Bittern), and readily identified by the general dark green color of back and wings. Abundant in suitable places from May to October as far north as Port Huron and Grand Rapids, but north of this infrequent or entirely absent. Oftenest seen when boating on small streams; then if disturbed it utters a harsh croak or two and flies rapidly along the edge of the water, usually alighting on some overhanging branch, only to move on again as the boat approaches. Its nest is a scanty platform of sticks and twigs in a low tree, most often a willow or poplar, and the eggs are pale blue, unspotted, and about the size of a pullet's.

5. COOT; MUD-HEN; CROW DUCK; BLUE PETER. It has a general slate blue color with a scanty white patch on each wing and a cream-white bill. In the fall it is often seen in flocks on open water and may be mistaken for a duck, but during the summer it keeps more closely among the reeds and water plants, where it builds its nest among the cat-tails and sedges, laying from eight to fifteen thickly speckled eggs about the size of hens' eggs. It is not web-footed in the ordinary sense of the term but its toes are provided with wide membranous lobes or flaps which serve the same purpose as the duck's foot in swimming, but enable the bird to run about more freely in the tangled marsh vegetation.

6. THE SPOTTED SANDPIPER; SAND-PEEP; PEET-WEET; TIP-UP. A dainty little wader, not as heavy as a robin, and most often seen trotting singly or in pairs along the sandy shore of lake, pond or stream searching for aquatic insects and other wee animals on wet ground or in shallow water. Its continual rocking, tilting and bobbing motion is more or less common to all the sandpipers. The nest, usually in a dry situation, often in a pasture or a plowed field, is merely a slight hollow in the ground, occasionally lined with a few grass leaves and weed stems. The eggs are four or five, pear-shaped, heavily spotted, and surprisingly large for the bird, the four eggs frequently weighing more than the parent bird.

7. KILLDEER; KILL-DEE; NOISY PLOVER; FIELD PLOVER. This noisy and well known little wader arrives from the south as soon as the ground is bare in the spring and lingers in autumn often until the first snow-fall. It frequents wet and dry places alike, but shows decided preference for newly plowed fields and the edges of shallow muddy pools. Its black-ringed neck, black and white wings and bright cinnamon tail coverts make it a conspicuous bird, while its shrill and constantly repeated call of "kill-dee, kill-dee, kill-dee," insures its ready identification. It is seldom seen alone, oftenest in pairs or little squads of three to eight. The nest and eggs are similar in location and general appearance to those of the Spotted Sandpiper, but the eggs are decidedly larger, measuring about an inch and a half in length. Like the sandpiper, the downy young are able to run within a few hours after they are hatched.

8. THE RUFFED GROUSE; PARTRIDGE. Formerly abundant in almost every section of the state, but has been materially reduced in numbers of late years through the destruction of the woodlands, especially in the southern half of the state. It is resident throughout the year wherever found. Its food consists largely of buds and leaves, especially while there is snow on the ground, but at other times it eats many berries and seeds, together with numerous insects. Its loud whirring flight when started from the ground or "flushed" is well known to every farmer's boy, and equally well known is the remarkable rolling sound made by the male bird when "drumming." It commonly roosts in trees, but in severe winter weather frequently plunges into the deep snow and passes the night completely hidden below the surface. The nest is a rounded hollow in the leaves, in which eight or more eggs are laid, which are white or buffy white, usually without any spots. The young run as soon as hatched and if the covey is suddenly disturbed they squat and hide skillfully, while the mother feigns injury and pretending to be badly crippled attempts to draw the intruder, dog or man, away from the neighborhood of the young.

9. MOURNING DOVE; TURTLE DOVE; CAROLINA DOVE. An abundant resident of the southern peninsula, but less common north of the Straits. In the southernmost counties it is resident throughout the year, but north of the latitude of Lansing is not often seen in winter unless the season be unusually mild and the ground largely free from snow. The mournful callnotes of this bird are sufficient warrant for its common name. Few people, however, know that it possesses in a remarkable degree the power of ventriloquism, and usually when the call seems to come from a distance of a quarter of a mile or more the author of the notes is in reality only thirty to fifty yards away. Formerly this bird was often mistaken for the Wild Pigeon, but this is no longer possible since the latter species is now believed to be totally extinct. The Passenger Pigeon was nearly twice as large as the Mourning Dove and lacked the black dot on each side of the neck, which is a characteristic of the Dove.

10. MARSH HAWK; MOUSE HAWK; FROG HAWK; MARSH HARRIER; BOG-TROTTER. One of our best known hawks, coming from the south in March, often before the uplands are free from snow or the ice gone from the marshes. It hunts back and forth over the low grounds generally only a few yards from the surface, rising above the trees only to pass from one

meadow to the next. The adult male is largely bluish white while the females and the young males are dark brown, but at any age or season it shows a conspicuous white patch on the rump and upper tail coverts by which the species may be identified readily. This hawk rarely if ever attacks poultry, but lives almost entirely on meadow-mice, frogs, snakes, and less often upon blackbirds and other small birds. It nests always on the ground (the only Michigan hawk which does so) and commonly lays six nearly globular white or bluish white eggs, usually without any spots. Fully entitled to protection, since its destruction of meadow-mice and other rodents makes it one of our most valuable birds.

11. COOPER'S HAWK; CHICKEN HAWK; BLUE DARTER. One of our smaller common hawks, found in all parts of the state and at all seasons of the year, but in very small numbers in winter. It may be recognized by its comparatively short, rounded wings and long tail, together with very slender legs and feet and remarkably long toes. The mature plumage is not gained until three or four years old, when it is clear slaty blue above and nearly white below, thickly *cross-barred* with reddish brown; the top of the head clear black and the tail slate blue with four or five broad, dark bars. The younger birds are browner and have the under surface largely white, *streaked lengthwise* with black.

This is the hawk which does most of the damage to poultry in Michigan. It rarely takes full grown fowls but carries away chickens of all sizes from the downy young up to nearly full grown pullets. For this reason it is one of the few hawks admitted to be generally harmful and therefore not protected by law. Aside from its damage in the poultry yard it destroys numbers of young quail, partridges and other wild birds, being preëminently a bird hawk, although it occasionally catches squirrels and less often field mice and gophers. It nests in trees, making a bulky nest of sticks and laying three to five bluish-white eggs without spots.

12. RED-SHOULDERED HAWK; BIG CHICKEN HAWK; HEN HAWK; WINTER HAWK. The adult has a nearly black tail crossed by four or five distinct, narrow, pure white bars. When young (less than three years old) it is a very different looking bird and lacks the white cross bars on the tail, but at any age it shows rust red shoulders (lesser wing coverts), and this mark together with its large size, about 45 inches from tip to tip of outstretched wings, serves to identify it. As a rule this species does not trouble poultry, but feeds mainly upon meadow-mice, gophers, squirrels, snakes and frogs, although individual birds have been known to come to the poultry yard for chickens, and once they have formed the habit nothing but death seems to cure it. A similar species, so similar as to be readily mistaken for it, is the Red-tailed Hawk, which when adult may be recognized instantly by the deep rust red tail with a narrow black bar near the tip. Both these species are known as "hen-hawks" and from early spring until midsummer are frequently seen soaring in wide circles high above the fields and woods uttering the call note "kee-aah" many times in succession.

13. SPARROW HAWK; KESTREL; RUSTY-CROWNED FALCON. A well-known little hawk, smallest of its kind in Michigan, and frequently seen perched on fence posts, telephone poles or the tops of low trees. A characteristic action is its hovering, almost stationary, above a meadow, then darting down into the grass to seize a cricket, katy-did, or other large

insect, or perhaps a field mouse, which is taken to the nearest fence post to be pulled to pieces and devoured. The name of Sparrow Hawk is a misnomer, since it rarely touches birds of any kind. In nesting habits it is unique among our hawks since it always lays its eggs in a hollow of some kind, usually the deserted nest of the flicker but occasionally the natural hollow of a decayed branch or stub.

SPARROW HAWK
Biological Survey, U. S. Dept. of Agriculture. Plate loaned by Zoological Dept. M. A. C.

14. SCREECH OWL; MOTTLED OWL; RED OWL; GRAY OWL; LITTLE-HORNED OWL. Our only small owl with conspicuous ear-tufts. So variable in color as to be very hard to describe properly. Sometimes the general color is gray, sometimes bright rusty brown, but the feathers of the back and breast, whatever their color, always show dark shaft stripes. Like most owls, this one hides by day and hunts mainly by morning and evening twilight or by moonlight. It nests in hollow trees where it lays four to six white unspotted eggs in April or May. The ordinary call is a series of clear, tremulous and rather musical notes, suggesting a wail rather than a screech. It is far more common about towns and villages than is usually supposed, and nearly every city park has at least one family which always does good work in destroying English Sparrows and mice. This is a most beneficial species and the law protecting it should be rigidly enforced.

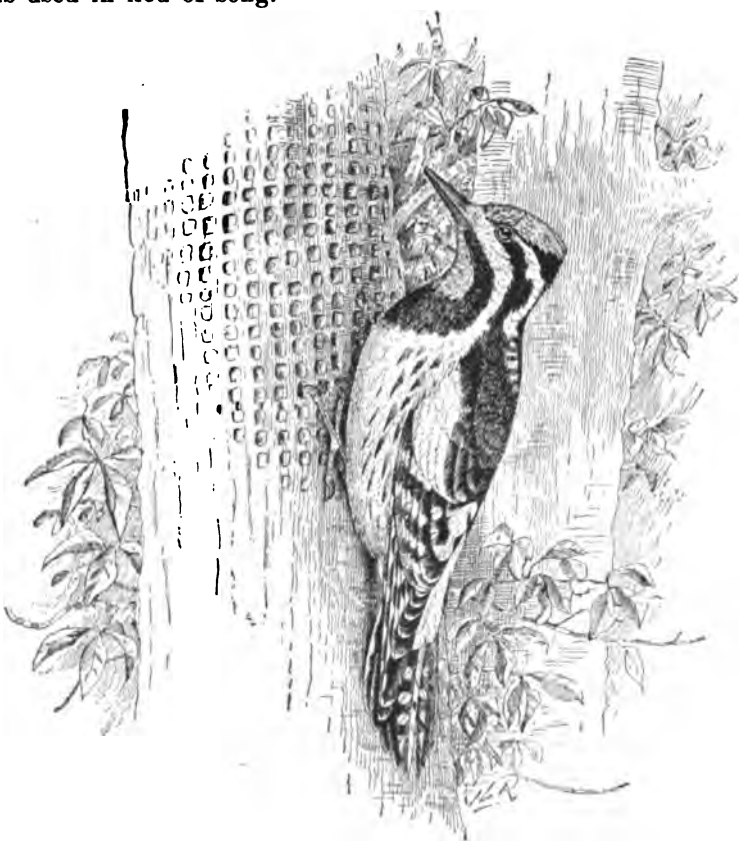
15. YELLOW-BILLED CUCKOO; RAIN-CROW; RAIN-DOVE; KOW-KOW. Generally distributed throughout the state but never abundant. Usually found singly or in pairs, but unless familiar with its note, "coo-coo-coo" or "cook-cook-cook," it may not be noticed at all. Feeding almost entirely on insects, and especially upon hairy caterpillars, it is one of our most valuable birds, the only drawback being its scarcity. It comes from the south in May and withdraws again in September or October, and in the interim it nests at almost any time, building a fragile platform of twigs in a bush or low tree and laying two to four pale blue, unspotted eggs which are almost perfectly elliptical and about the size of a robin's.

16. BLACK-BILLED CUCKOO. So similar to the preceding species as not to be distinguished by the ordinary observer. The expert, however, separates it readily, since the Yellow-billed Cuckoo has the larger part of the lower mandible yellow, and shows large white "thumb-marks" on the outer tail feathers, while the Black-billed Cuckoo has a uniformly dark bill, a circle of bare red skin about the eye, and the outer tail feathers only narrowly tipped with white. In general habits the two birds are so much alike that any description would answer for one as well as the other.

17. KINGFISHER; BELTED KINGFISHER. One of the few Michigan birds in which blue predominates. The possession of a crest possibly might lead one to confound it with the Blue Jay, but the long, dagger-like bill of the Kingfisher and its small, almost invisible, feet and legs render such a mistake unlikely. Its fondness for water, its habit of plunging into pond or stream to capture the small fish which form the larger part of its food, and its deep nesting burrow in banks of sand or clay all serve to mark the bird as specially interesting and attractive. Unfortunately its fish eating habits have prejudiced many anglers and it is much persecuted by gunners and especially by the thoughtless amateur, old or young, who has a rifle or other shooting iron which he must needs test on every wild thing within sight. The law distinctly prohibits the killing of the Kingfisher and promises fine or imprisonment for violation. The bird is not simply harmless to most game fishes, but decidedly beneficial through its destruction of crayfish and water insects, while its beautiful plumage and interesting habits lend a charm to every lake and stream in the state. The usual cry is a harsh rattle which is surprisingly loud for a bird of its size. The eggs are usually about six, pure white, unspotted, and of a very short oval shape, sometimes almost spherical.

18. DOWNY WOODPECKER; SPOTTED WOODPECKER (also known erroneously as Sapsucker). This is our smallest woodpecker and the spotted black-and-white plumage (the male showing a red crescent on the nape) serves to separate it from any other common bird except its larger relative, the Hairy Woodpecker. The Downy is a common resident not only of the deep forest and lesser outlying woodlands, but of nearly every orchard and grove, even coming regularly into the parks and shaded streets of town and village. During the colder half of the year (for this species stays with us summer and winter) he can be attracted close to the house by hanging a beef bone or a chunk of suet on a convenient tree, which he will visit every day, and sometimes a dozen times a day, in company with chickadees and nuthatches. We have no more beneficial

bird in our orchards, for he consumes myriads of insects, larvæ, eggs and pupæ, and although like most woodpeckers he takes a large part of his food from decaying wood, yet he undoubtedly eats thousands of insects which would otherwise injure twig, leaf or fruit. Bicknell says of its voice: "In addition to its usual short, sharp note the Downy Woodpecker has a rattling cry which starts and ends with an abrupt precision suggestive of a mechanical contrivance set off with a spring. This is used in lieu of song."



SAPSUCKER
Biological Survey, U. S. Dept. of Agriculture. Plate loaned by Zoological Dept. M. A. C.

(The Hairy Woodpecker is almost a duplicate of the Downy but decidedly larger, its weight in fact being at least double that of its smaller relative. The two birds are marked almost precisely alike, but in the Downy Woodpecker the outer pair of tail feathers is white, more or less barred with black, while in the Hairy these feathers are unspotted.)

19. SAPSUCKER; YELLOW-BELLIED WOODPECKER. Similar to the Downy Woodpecker but somewhat larger and always known in adult plumage by the red on the *forehead* and *front part of crown,* together with the pale yellow of the lower breast and belly. In addition the adult male has a bright red chin, while this part is white in the female. Both sexes

show a velvet black band across the chest. This is a summer visitor to Michigan and abundant in all parts of the state in the spring and fall, but nests freely only in the northern half of the lower peninsula and in the upper peninsula. It is commonly confounded with the Downy Woodpecker, which it somewhat resembles, but it should be carefully separated from this valuable bird. It gets its name of Sapsucker from the habit of perforating the bark of trees with small holes, commonly arranged in rows, from which it first extracts the soft inner bark and later drinks the flowing sap. Later still it may eat some of the insects attracted by the sweet sap, but as a rule these are mainly flies, bees, and wasps, which would do the tree no harm and their death does the fruit grower no good. Apple and pear trees are sometimes seriously injured by the Sapsucker's work and in particular some of the evergreens like the Scotch and Norway Pine are rendered unsightly by the continued and copious outflow of pitch which runs down the trunk of the tree for a distance of many feet.

20. RED-HEADED WOODPECKER; RED-HEAD; TRICOLOR. Our only woodpecker with entirely red head and neck (in both sexes). Otherwise conspicuous for the velvet black back, wings and tail, with large areas of white on the rump and wings. The Red-head is found in the small groves of timber in cultivated districts and in the slashings of heavy timber in the wilder parts of the state. It flies with deep undulations from one telephone pole to the next, or from post to post along the highway, and its noisy cries and striking plumage compel the attention of the most unobservant. We find it most abundant from May to October, but while the greater number spend the winter farther south a few linger in Michigan through the entire year, frequenting beech groves or oak forests where nuts and acorns are abundant. In spite of the general impression to the contrary, this bird is not particularly valuable, since it destroys insects rather indiscriminately, taking beneficial and injurious species alike, and showing a marked preference only for those of large size. On the other hand it is a notorious fruit thief and its attacks upon cherries, apples, pears and grapes, and sometimes currants and raspberries, go far to warrant the enmity which most fruit growers hold for the bird.

21. FLICKER. This bird is known in different parts of the country by so many different names that it is hard to make a selection. Perhaps those most often heard in Michigan are High-hole, High-holder, Wake-up, Wick-up, Yellow Hammer, and Golden-winged Woodpecker. The golden-yellow of the lower surfaces of wings and tail forms a good field mark when the bird passes over the observer, while the conspicuous white patch above the base of the tail is an even better mark as the bird flies away from one. In addition the breast, belly and sides are thickly marked with circular, clean-cut black spots and the breast shows a sharp black crescent. The male has a red nape and a pair of black cheek patches, while the female lacks both. Our largest common woodpecker and found everywhere throughout the state from April to October. Unlike our other woodpeckers the Flicker gets a large part of its food from the ground. This food consists very largely of ants but also includes grasshoppers, beetles and seeds. Its work in the destruction of ants possibly is of importance to the agriculturist, but the rest of its food is of such a nature as to be of little value one way or the other. The bird, however, is decidedly ornamental, does no particular harm, and should

be given the protection which the law promises but does not always secure.

22. NIGHTHAWK; BULL-BAT; MOSQUITO HAWK. The Nighthawk belongs to the same family with the Whip-poor-will but the two are quite unlike in habits, as well as general appearance. The Nighthawk is a bird of the open country, with long slender wings and great power of flight, most often seen cutting the air high above town or country, uttering its rasping call note "yank," and at intervals diving vertically or obliquely toward the earth for a hundred feet or more and checking itself by spreading its wings in such a manner that the air rushing between the quills gives out a peculiar roaring sound which is quite characteristic. If watched carefully a prominent white spot may be seen on either wing, which at a little distance looks like a hole or opening and we have heard the rushing sound just spoken of attributed to the air rushing through this hole in the wing. The Whip-poor-will on the other hand is a bird of the forest and thicket, leaving cover only at dusk, and then seldom rising high in the air, but flitting from rock to stump and post to tree, alighting frequently on the ground and constantly uttering its rapid, vibrant call which resembles the words "whip-poor-will" repeated five to ten times in as many seconds. Both species are strictly insect eaters and do a vast amount of good through their destruction of noxious pests. These are almost always captured on the wing, the bird flying with wide opened mouth, the edges of which are furnished with long bristles, so that even in the dark it is able to catch insects with considerable certainty. Both species lay spotted eggs on the bare ground or leaves without any attempt at a nest, the Whip-poor-will placing its eggs invariably beneath the shadows of thick brush or trees, while the Nighthawk almost always lays its eggs in the open field or not infrequently upon the flat sanded or gravel-covered roof of some city building.

23. CHIMNEY SWIFT. (Often miscalled Chimney Swallow.) Readily distinguished from the swallow by its apparent lack of tail. Arrives from the south toward the end of April, rears one or two broods of young in its remarkable basket-like nest made of dry twigs glued to each other and fastened to the inner wall of a chimney, and departs for the south again in September or early October. While often seen at midday wheeling in pairs or in trios overhead in pursuit of insects, it is most active morning and evening, and while feeding young often flies by moonlight. As with most birds which nest in holes, the eggs are white and unspotted, and in the present species very much longer and more pointed than most other eggs of their size.

24. HUMMINGBIRD; RUBY-THROATED HUMMINGBIRD. Too well known to need description, but it should be said that we have in Michigan only one species of hummingbird, although the male and female are so unlike in form and color as to mislead any but the most careful. The male alone shows the bright ruby throat, the female and the young being plain grayish white below. The Hummingbird arrives from the south in May and remains with us until mid-September, occasionally a little later. Its nest, a perfect gem of bird architecture, resembles a little mossy knot on the nearly horizontal or slightly drooping branch commonly selected as a nesting site. Nests are most often found on apple, maple and beech trees, but occasionally on almost any other species except an evergreen. The eggs are always two, pure white and unspotted. The food

consists largely of nectar, although the bird certainly takes a very considerable number of tiny insects and spiders from the flowers which it visits. Apparently young hummingbirds do not have to learn to fly, since they have been seen to fly directly from the nest almost as steadily as the old birds themselves.

25. KINGBIRD; BEE MARTIN; BEE BIRD. Easily known by the slate gray upper parts and pure white under parts, the dark tail with a conspicuous terminal band of white. Old birds have a patch of crimson on the crown which can be shown or hidden at will.

Found all over the state from May to September, and well known to every farmer's boy from its flycatching habits and its frequent attacks on crows and hawks. Its bulky nest of twigs, straw, string and feathers is placed most often upon a thorn tree or scrubby fruit tree at no great height from the ground, and commonly contains four creamy white eggs beautifully spotted and streaked with various shades of brown. This species is fond of the vicinity of water and frequently dips its bill while flying, after the manner of a swallow, but probably in most of these cases it snaps up insects from the surface. Its characteristic flight, with widely spread tail and quickly vibrating wings serves to identify it almost as far as it can be seen.

26. PHOEBE; PEWEE; BRIDGE PEWEE; BARN PEWEE. Another very common flycatcher which is found everywhere throughout the state, placing its nest most often under a bridge or on the beam of a shed or barn, but also occasionally on a ledge of rock or even on a shelf of sand or a projecting root in a sand bank. Probably the most characteristic action of the bird is the frequent sagging and flirting of the tail. Its general color above is grayish olive, becoming smoky brown on the top and sides of the head. The under parts are dull whitish without special markings. It resembles the Wood Pewee quite closely but lacks the white wing bars which are usually visible in that species. Its common call note is suggested by the word "phoebe" uttered sharply and with considerable energy, with the accent on the last syllable. Captain Bendire writes it "see-hee." The clear, long drawn, plaintive "pee-wee" of winter and early spring is given by the Chickadee weeks or even months before the Phoebe arrives from the south. The eggs are pure white and almost always without markings; rarely with a few brown specks.

27. WOOD PEWEE. So similar to the other small flycatchers as to be recognized with difficulty. The light (nearly white) wing bars offer the best recognition mark, and the fact that it otherwise resembles the Phoebe but has a somewhat shorter tail may also be of service. It comes from the south about the middle of May, builds its nest during the first half of June (often with a second nest in July or August) and disappears again about the middle of September. The nest is characteristic; shallow, thin walled, often bottomless or nearly so, yet so securely placed on a horizontal branch, and its material so firmly interwoven and glued by spiders' webs and perhaps some other sticky material, that it frequently outlasts the winter. It is built mainly of fibrous materials, including grasses, bark, rootlets and various plant fibres, and so covered outside with spiders' webs, moss, lichens and other materials as to closely resemble the branch on which it is placed. The eggs, two, three or four, are white or cream colored, heavily marked about the larger end with brown or purple spots and lines. The ordinary note is the long drawn

plaintive "phoebe" or "pee-wee" which is perfectly characteristic but defies description. The food consists almost entirely of insects.

28. PRAIRIE HORNED LARK; SHORE LARK; PRAIRIE LARK; YELLOW-THROAT. In earliest spring, while there is still much snow on the north slopes and everywhere in the woods, this little lark will be heard twittering in the bare fields and may be found nesting on the sides of grassy knolls or in open stubble fields. Its song is a rather feeble performance and resembles, as nearly as I can express it, the words, "think, think-a-little-think." Sometimes this song is uttered from a clod of earth or the top of a fence post, and less often while the bird hovers in the air at a height of fifty or one hundred feet. Possibly it sometimes sings at a much higher elevation, but its song is far from loud and thus may pass unnoticed.

On the ground the bird runs like a mouse and when flushed flies with great ease and rapidity, often rising to a considerable height, circling for a few moments, then dropping to the earth again at no great distance from its starting place. The nest is always placed on the ground and consists of grasses and vegetable fibres closely interwoven and quite thick and warm. Four or five eggs are laid varying in color from olive to dirty white, thickly and finely spotted with brown. This little bird eats millions of weed seeds as well as some insects, while it does no harm of any kind so far as we can discover. It has been charged with pulling sprouting wheat, but we have found no evidence in support of this claim.

29. BLUE JAY. Recognizable at a glance by the general bright blue color checked with black and white, and the conspicuous crest. It can be mistaken for no other bird, except possibly the Kingfisher, from which its habits easily distinguish it.

With the exception of the Crow this bird probably has caused more discussion than any other bird in the state. Its food includes almost everything eatable but it shows special fondness for acorns, beechnuts, small fruits and insects. It robs the nests of smaller birds, eating their young or eggs with avidity, but this seems to be largely a matter of individual taste. At some times and places, even in the nesting season, the Blue Jay appears to live peaceably with its neighbors; in other places it is a pirate and a robber bent always upon mischief.

Its ordinary call is a harsh note sounding like "jay, jay," which gives it its common name, but it has also an odd, yodling call which Seton Thompson writes "sir-roo-tle, sir-roo-tle, sir-roo-tle." Again it imitates the loud "kee-ah" or "keo" of the red-shouldered and red-tailed hawks, deceiving even the practiced ear. Although less often heard, the jay has a rather disjointed but sweet, low, warbling song, heard often in late winter and early spring, but also during the height of the nesting season. The bulky nest of twigs and roots is placed in some low tree, often an evergreen, and contains from four to six eggs so heavily marked with brown and lavender as almost to obscure the ground color of olive or buff.

30. CROW. Too well known to need description, its large size, uniformly black plumage and hoarse notes, "caw, caw, caw" rendering it unmistakable. Volumes have been written on its habits, yet agriculturists are still divided as to its economic value. It does immense damage through the destruction of poultry and the eggs and young of wild birds, as well as by pulling sprouting corn and other grains, eating corn "in the

milk" and attacking many cultivated fruits. It also sows broadcast the seeds of poison ivy and poison sumac. On the other hand it may do some good through the consumption of carrion and it certainly confers some benefit in the destruction of insects. Careful investigation, however, shows that its value as an insect eater has been much overestimated. It is not particular whether the insects are alive or dead and moreover shows a decided preference for large and comparatively harmless insects avoiding most of the common and destructive species which infest the field, garden and orchard. Probably its best work is the consumption of grasshoppers and May-beetles. It eats very few cutworms or other caterpillars. In short the sum total of the Crow's good deeds is by no means large and is far outweighed by the harm done.

31. BOBOLINK; WHITE-WINGED BLACKBIRD; SKUNK-HEADED BLACKBIRD; SKUNK-HEAD. The male in spring is clear black below, mixed black, white and cream above; the female is pale buff streaked along the sides and over all the upper parts with black. After midsummer the old males lose all the clear black and white, and old and young of both sexes resemble the female described above. This, the most rollicking and voluble songster of our meadows and open fields, is a common resident from May to September, when it leaves us for the Carolina rice-fields where it is known as the rice-bird and ortolan. While with us it does little or no harm, living mainly on insects and weed seeds and enlivening our fields with its truly remarkable song, which is a medley of rapidly uttered notes, some with the ringing quality of cut glass, others metallic as piano wire, while they are poured out in such a flood of indescribable melody as to baffle description. A mere hint of the quality of the call note is conveyed in the bird's common name if it be shortened to "bob-link."

32. COWBIRD; COW BUNTING; COW BLACKBIRD; LAZY-BIRD. The smallest of our blackbirds and the male easily known by the greenish black plumage and brown head. Often seen feeding in small squads about the feet of grazing cattle or even perched upon their backs. Unique among Michigan birds from its habit of laying its eggs always in the nest of some other bird, never making any attempt to build a nest of its own. The nests thus used are mainly those of smaller birds, warblers, sparrows, vireos, etc., and the larger egg of the Cowbird is thus quite conspicuous. The nest owner, however, often overlooks the obvious fraud and rears the young cowbird, commonly with the complete loss of her own brood. The destruction of young birds in this way is often enormous, and the Cowbird must be regarded on this account if for no other reason, a most undesirable citizen.

The female has a dirty, grayish or brownish gray plumage not distantly resembling an overgrown female English Sparrow.

33. RED-WINGED BLACKBIRD; REDWING; SWAMP BLACKBIRD. Best known of all our blackbirds, the glossy black coat and scarlet epaulets of the male making him doubly conspicuous. Every cat-tail marsh in the state has its colony of Redwings and these birds form the larger part of the great mixed flocks of blackbirds which visit the grain fields and stubble fields for food. The Redwing comes from the south early in March, invariably in flocks, and the first flocks always consist entirely of adult males. A week or ten days later, perhaps by March 20 or 25, flocks of females and young males appear, these being streaked with brownish or

grayish above and below and mottled or not with dull red on the shoulders.

Samuels writes the Redwing's "song" with the syllables "quonk-a-ree," which gives a fair idea of its call, which is musical and pleasing, as uttered by the birds perched singly on bush-top or dead reeds close to the water. The clear whistle "a-lee-e-e, a-lee-e" uttered on the wing or as an alarm call from a perch, is one of the most penetrating of bird calls and is often heard from far overhead when the bird himself is almost or quite out of sight. The nest of grasses and weed-stalks is usually hung or woven among the cat-tails, sedges or bushes which stand in shallow water, and is seldom more than a foot or two from the surface, sometimes being placed flat on the top of a grassy tussock. The eggs are four or five, spotted and pen-marked with brown, purple and black on a greenish white background.

34. MEADOWLARK; COMMON LARK; FIELD LARK. Known at a glance by the V-shaped black collar separating the bright yellow throat and breast. Abundant everywhere in open country in the Lower Peninsula and in favorable places in the Upper Peninsula. A welcome arrival from the south in earliest spring, and one of the last migrants to go in the fall. Nests on the ground in grassy fields and lives mainly on insects, with a few seeds. One of the most valuable birds on the farm.

35. BALTIMORE ORIOLE; GOLDEN ROBIN; HANG-NEST. The brilliant coat of orange and black is distinctive, and the purse-shaped nest swung from the drooping branch of elm or birch is equally characteristic.

This is one of the most beautiful of our summer visitors and well known throughout the Lower Peninsula up to about 44°, though entirely absent from the Upper Peninsula. It arrives with great regularity from the south, the average date for males being about May 5, the females a week later. The voice is rich and mellow, but the few notes uttered in close succession can hardly be called a song. Bendire writes the commonest form as "hioh, hioh, tweet-tweet." As an insect eater the oriole has few rivals and the fact that he loves green peas and sometimes punctures grapes and apples should not be allowed to weigh heavily against him.

36. BRONZED GRACKLE; CROW BLACKBIRD. Largest of our blackbirds, the head and neck changeable blue-purple-green-black, the back brassy or bronzed (whence the name), the eye bright yellow. This is the common blackbird of our lawns and parks, where it forages for white-grubs, cutworms and May-beetles, sometimes singly, more often in flocks of ten to thirty. The bulky nests of grass, bark, etc., are oftenest placed high up in evergreen trees, but sometimes in hardwood trees or even in niches about buildings. The notes are harsh and disagreeable and the bird does more or less damage by pulling sprouting corn and grain and eating some corn in the "roasting-ear" stage. Nevertheless it consumes myriads of harmful insects and in the opinion of many who ought to know the good thus done far outweighs all harm.

* * * * *

The eleven species following, numbers 37 to 47, belong to the family of finches, which are mainly seed-eaters or bud-eaters, as indicated by the strong cone-shaped bill which is used with great skill for a variety of purposes. The finches and sparrows include some of our best songsters as well as some of our most beautiful birds. They have strong powers of

flight, a high degree of intelligence, and though mainly vegetarian in diet not a few eat insects freely, and none of them does any serious injury, although the grosbeaks and some others occasionally eat fruit buds rather freely and more rarely take a little fresh fruit. It is impossible to draw the line sharply between the sparrows and finches, but as a rule the latter are more brightly colored and the males and females differ widely, while the sparrows are more soberly colored and the sexes more nearly alike.

37. GOLDFINCH; WILD CANARY; THISTLE-BIRD; YELLOWBIRD. Universally distributed throughout the state, but much more plentiful some years than others, and always more abundant in summer than in winter. The male in summer is unmistakable in body plumage of lemon yellow with a velvet black cap and black wings and tail with white edgings. The female is a decidedly yellow bird but lacks all the sharp black and white markings of the male and the yellow is duller. In winter both sexes lose most of their yellow and would hardly be recognized as the same birds. Goldfinches are most often found in flocks, and these are very conspicuous in May and June, feeding on seeds of the elm or gathering by scores on the patches of dandelions to feast on their ripening seeds. The male has a delightful, canary-like song, and its commonest call-note while at rest also closely resembles that of the Canary. The nest, which is bulky, soft and deeply hollowed, is rarely built before the first of July, often not until the middle or end of that month. Five or six tiny blue-white eggs, without any spots, are commonly laid.

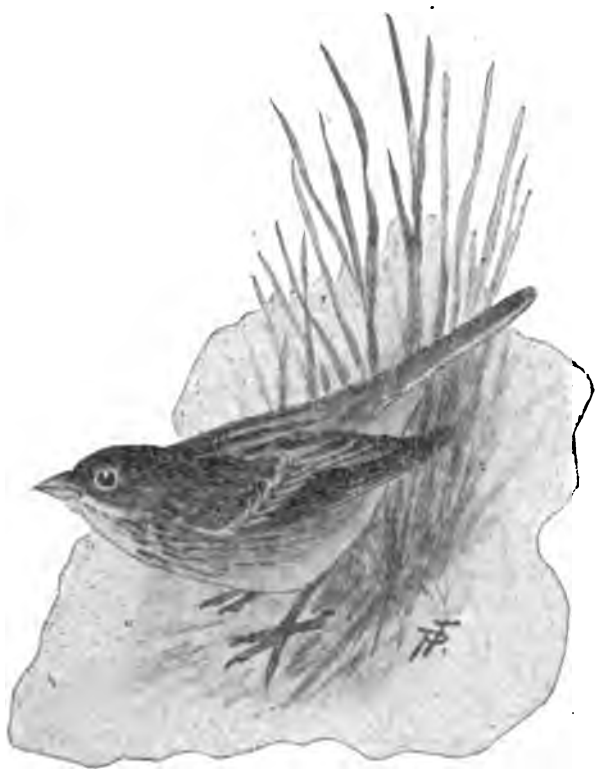
This bird must not be confounded with the Yellow Warbler. (No. 57.)

38. ENGLISH SPARROW; HOUSE SPARROW; COMMON SPARROW. Too well known to need description; the commonest sparrow now in town or country, and not likely to become less so. Doubtless it has some good points but being a typical seed-eater it takes insects rarely and irregularly, never in sufficient quantities to do any perceptible good. It drives away many of our better birds, either by direct attack or more commonly by appropriating the nesting boxes and other holes which they would otherwise use, and when we throw out seeds and other food in winter to attract native species the English Sparrow usually arrives first and devours everything in sight. It soils our porches and eaves with its droppings, stops up our roof pipes with its nests, and often infests houses and stables with mites and other parasites which are undesirable. There is a growing belief also that this bird is largely responsible for the distribution of hog cholera from farm to farm, the germs being carried by the bill, feet and plumage.

39. VESPER SPARROW; GRASS-FINCH; BAY-WINGED BUNTING. A bird of the open country, delighting in the upland sheep pasture or the neglected mowing lot, and often nesting in the cornfield or among the half-grown wheat. It loves to sing from fence post, telephone wire or low tree top, but all its food, both insects and seeds, comes from the ground and its nest is always built on or rather in the ground, since it is commonly sunken until its rim is flush with the surface. The song is one of those simple unpretentious little performances which are nevertheless very hard to describe. It resembles that of the Song Sparrow somewhat, and like that is repeated again and again from the same perch, but the notes are clearer, sweeter, more delicate, making the song as a whole less mechanical and more musical. The bird itself is best separated

from the other sparrows with spotted breasts by the white outer tail feathers which are most conspicuous as the bird flits from one perch to another.

40. WHITE-THROATED SPARROW; WHITE-THROAT; PEABODY-BIRD; CANADA SPARROW. One of our larger sparrows which occurs in southern Michigan only as a migrant but nests commonly from the middle of the Lower Peninsula northward. Like the Vesper Sparrow this bird gets practically all its living from the ground, and its nest is built there also,



BY P. A. TAVERNER.

VESPER SPARROW
Plate loaned by Zoological Dept. M. A. C.

but it is a bird of the thicket and grove rather than of pasture or field, and if we surprise a party of White-throats feeding in the open they invariably seek cover in the nearest shrubbery. Its song has been variously rendered, the commonest forms perhaps being by the words "sow whe-e-eat Peabody, Peabody, Peabody" and "sweet-sweet-sweet Canada, Canada, Canada." Usually the second or third note is highest and very clear while the succeeding notes fall regularly and are uttered with increasing rapidity. This is one of the most characteristic songs of the northern woods, particularly of the cedar swamps and the evergreen fringes along the streams.

41. CHIPPING SPARROW; CHIPPY; HAIR-BIRD; HAIR SPARROW. From April to October this confiding little sparrow may be found abundantly anywhere in the settled parts of the state. Usually we see it only in pairs or singly, but in autumn it forms scattering flocks and feeds on weed seeds in company with other sparrows. The young are fed freely on insects and the old birds doubtless consume a few more, but as a whole the food consists of various small seeds, particularly those of grasses and weeds. The nest is placed most often in some low bush or tree, preferably an evergreen early in the season, but sometimes in a lilac bush, a fruit tree or even an oak or maple. The nest is made very largely of horse hair (whence the name Hair-bird) but always has a foundation of roots and grasses. The eggs rarely exceed four and are a beautiful blue-green color rather sparsely spotted and streaked with black, these markings tending to form a circle or wreath at the large end. In most regions at least one nest in three will contain an egg or two of the Cowbird. The song consists of a simple trill formed by the rapid repetition of a single note anywhere from ten to one hundred times. As a rule the notes are rather feeble, wooden and unmusical but there is much individual difference and I have heard the song late at night when it was sweet and decidedly pleasing.

42. FIELD SPARROW; BUSH SPARROW; FIELD CHIPPY. John Burroughs says this bird's song is like the words "fe-o, fe-o, fe-o, few-few-few, fee-fee-fee," uttered at first high and leisurely, but running very rapidly toward the close which is low and soft.

The Field Sparrow is partial to bushy pastures and the edges and openings of second growth woods, but it is found with us only in the Lower Peninsula, and in greatest numbers in the middle and southern counties. It nests either on the ground or in low bushes and brambles, and the nest and eggs are not always separable from those of the Song Sparrow and some others. The bird itself is one of the few small sparrows which shows neither spots nor streaks on the under parts. The reddish-yellow bill separates it easily from the Chipping Sparrow in which the bill is black.

43. JUNCO; SLATE-COLORED SNOWBIRD; COMMON SNOWBIRD. An abundant migrant throughout the state and a common summer resident of the northern half. The slate-colored plumage, with white belly and outer tail-feathers, serves to identify the male at a glance, and the female is very similar but a little browner. During migration it appears in large but straggling flocks, which haunt the edges of woods, the brushy pastures, and the hedges and fences that border roads and fields.

Its food is mainly small seeds and it does incalculable good by its destruction of the common weed seeds of farm and garden. It lays three to five speckled eggs in a well hidden, neatly built nest on the ground. The ordinary song is a prolonged, clear trill, which in late spring and summer changes to an interrupted warble. Its call-note or alarm-note is a sharp "smack" or "chap."

44. SONG SPARROW; HEDGE SPARROW; BUSH SPARROW; GROUND SPARROW; GROUND-BIRD. Our most abundant native sparrow throughout the state, and with us from March to November, while a few always winter in the southern counties. It shows the typical "streakiness" of sparrows, being reddish brown above and ashy or whitish below, everywhere streaked with brownish black, the streaks below tending to run together

and form a conspicuous spot or patch in the middle of the breast. This is true of the Vesper Sparrow also, but in lesser degree, the streaks being fewer and narrower and the breast spot less conspicuous; moreover the Song Sparrow has no white in the tail. It feeds mainly on the ground, going to shrubs, vines and bushes for insect food for its young, and almost always seeking an elevated perch,—fence post, bush or tree—from which to chant its pretty song. This usually begins with three high, emphatic, evenly spaced notes, followed by a dozen which are more or less "jumbled," these in turn by a decided trill, ending with two or three distinctly lower notes. The song may be phrased somewhat like this: "chink, chink, chink, tinker, tinker, tinker, tinker, tr-r-r-r-r-r-r-tunk, tunk"; but there is great variation among different performers, and the same individual may use several different songs. The three introductory notes, however, are seldom omitted. The nest is always neatly built of woven grasses, rootlets and other fibrous materials, and is deeply hollowed and carefully lined, usually with hair. It is placed indifferently on the ground, or in a bush or hedge, less often in a tree at some height from the ground. The first nest, in April, is likely to be hidden in the thick dry grass, or else placed in an evergreen, but the later nests may be built anywhere. The eggs are three to six and vary interminably in shade of ground color and pattern of markings, but they are always spotted with brown or black on a bluish, greenish or white background. This bird has many natural enemies, the most dangerous being the house cat and the Cowbird. If both these could be destroyed utterly the bird world—and probably our own world—would be safer and happier.

45. CHEWINK; TOWHEE; GROUND ROBIN; SWAMP ROBIN; JOREE. Larger than most sparrows and smaller than the Robin, the Chewink is a conspicuous bird of the woodlands over a large part of the state, being least common in the northernmost sections. It frequents brushy pastures and open woods and is especially abundant along roadsides and on the margins of clearings. It spends most of the time searching for food on the ground where it scratches like a chicken and makes nearly as much noise. Its alarm note is "che-wink" or "chwink," whence its common name. Like many other ground-loving species it sings oftenest from a high perch and Seton Thompson writes its song "chuck-burr-pill-a-will-a-will-a." The nest is placed usually on the ground, more or less hidden beneath a bush or a brush-heap; rarely at a height of two to ten feet in a vine tangle or a scrubby tree. The eggs are pinkish, thickly peppered with reddish brown dots.

46. ROSE-BREASTED GROSBEAK; SUMMER GROSBEAK; POTATO-BUG BIRD. Male, black, white and rose-red in large masses, the short, thick bill nearly white. Female, brown or gray, heavily streaked with brown, the wings lined with yellow and a distinct whitish stripe over and behind the eye. An abundant summer resident of the entire Lower Peninsula and by no means rare in the Upper Peninsula. It comes from the south about the first of May and returns again in September and October, but at that time none will be found in the colored plumage since even the old males assume a gray plumage similar to that of the female after the nesting season is over. The nest, placed usually in a bush or sapling not more than ten or twelve feet from the ground, is a fragile, basket-like structure made of the slenderest twigs, rootlets and other fibrous material, usually with the bottom so thin and open that the greenish, spotted eggs

can be seen through it. The Grosbeak is a superb singer, his rich, mellow warble suggesting both the Robin and the Baltimore Oriole yet far surpassing either. The call-note, common to both sexes, is a single sharp, high-pitched chip which is unlike that of any other bird known to me. It might be written "it" or "hit", but this should be pronounced forcibly, almost explosively, to get the right effect. Though a bud-eater and seed-eater, this bird does almost no harm (It does eat green pease) and the fact that he eats many injurious insects, including the obnoxious potato beetle, certainly should give him the best of standing with farmer and gardener.

47. INDIGO BIRD; INDIGO BUNTING; BLUE FINCH; BLUE CANARY. The male Indigo Bird is an entirely dark-blue bird about the size of a canary, the female being decidedly smaller, and dull brown without trace of blue except sometimes a faint blue-green gloss on the outer edges of wing and tail feathers. This is a dainty little finch which comes to us from the south about the middle of May and leaves us again in September. It seems to be nowhere abundant, yet once its song is known it can be found at any point in the state from the Indiana line to Lake Superior. It lives on seeds, small fruits and insects, taken partly from the ground and partly from shrubbery and trees. When singing the male loves to take a perch thirty to eighty feet from the ground and here he will remain indefinitely, repeating his striking song at short intervals sometimes for an hour. The song is not unlike part of the song of the Goldfinch, which in turn suggests some canary songs, but that of the Indigo Bird has a ringing, bell-like quality which is all its own. The nest is always placed near the ground, usually in a thicket of hazel or a cluster of "water-sprouts" from a stump in a clearing. The nest is likely to be bulky but compact, well built, of woven grasses, fibres, and usually some dead leaves, and lined with rootlets, horse hair and fine grasses. The eggs are clear bluish white, generally unspotted, but occasionally with a few reddish flecks.

48. SCARLET TANAGER; TANAGER; RED-BIRD; BLACK-WINGED REDBIRD; FIRE-BIRD. The scarlet head and body with velvet black wings and tail belong to no bird but the male Scarlet Tanager. The female Tanager shows no trace of red, but is olive-green above and yellowish below, the wings and tail brownish. A common but nowhere abundant bird, and found during summer in all parts of the state. To the uninitiated it is a rare species, but once its Robin-like song has been fixed in the memory and its peculiar call-note "chip-churr; chip-churr" has been learned, the bird can be found in almost every patch of woodland and not infrequently in the oaks, elms and maples along the village streets. Doubtless the song is often mistaken for that of the Robin but there is a certain hoarseness or nasal character about it which at once serves to identify the singer. It sings best in the hottest weather, and a cold rain which seems to stimulate the Wood Thrush, Catbird and Robin, puts an effectual damper on the Tanager. It combines the food habits of finch and fly-catcher taking immense quantities of insects, many of them on the wing, while it also eats seeds, berries and wild fruits freely. Only a small part of its food comes from the ground.

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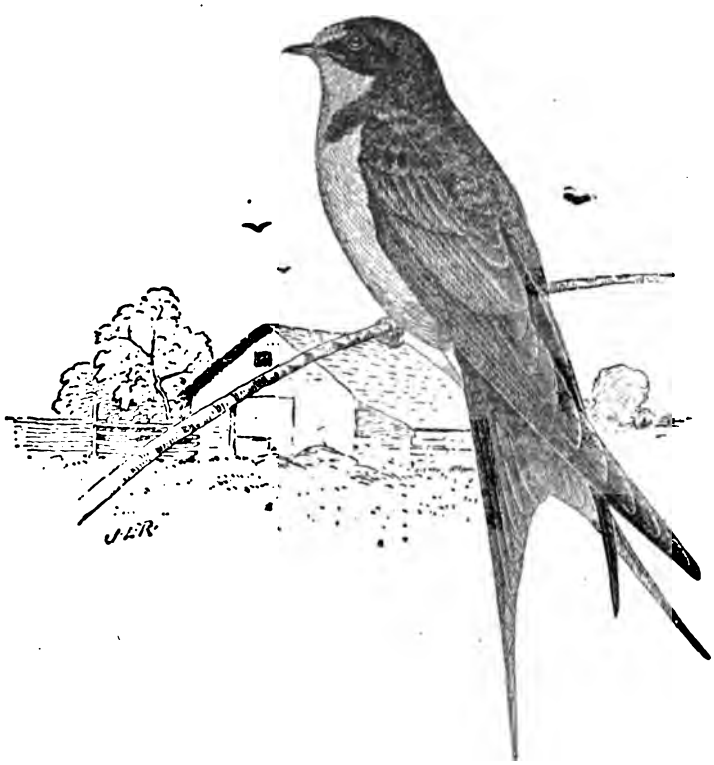
The swallows (Nos. 49 to 52), belong to a family famed throughout the world for grace of form and swiftness of flight. They are also universally esteemed for their insect eating habits and their complete harmless-

ness. Catching most of their food on the wing they are largely dependent on the weather, for few insects fly freely unless the air is at least moderately warm, hence the appearance of swallows in numbers is regarded as assurance of mild weather and they are hailed in many countries as the harbingers of spring. The Purple Martin is the largest and strongest of our species, and the Bank Swallow the smallest, while the Barn Swallow and Tree Swallow are intermediate in size. They may be readily separated by comparing size, color and form, or with equal ease by a comparison of habits. All are abundant throughout the state, but



BARN SWALLOW
Biological Survey U. S. Dept. of Agriculture. Plate loaned by Zoological Dept M. A. C.

the Purple Martin and Barn Swallow are more plentiful in the more thickly settled regions, the other two being more independent of man for nesting sites.

49. PURPLE MARTIN; BLACK MARTIN; HOUSE MARTIN; COMMON MARTIN. Male, steel blue, with brownish-black wings and tail; female, similar but duller above; under parts grayish or brownish white. Tail moderately forked. Nest in gourd, bird-box, cornice, or woodpecker's hole. Eggs pure white, without spots. Arrives in April and departs in August.

50. BARN SWALLOW; BARN-LOFT SWALLOW; FORK-TAILED SWALLOW. Steel blue above, mostly rusty brown below, the tail very deeply forked and crossed by a conspicuous row of roundish white spots. Nest open cup-shaped, of mixed mud and straw, lined with feathers, and almost

always fastened to a rafter or beam inside a barn or other building. Eggs white, thickly dotted with brown. Arrives late in April and departs early in September. (The Cliff Swallow has a slightly forked tail and builds a covered or gourd-shaped nest of pellets of mud without any straw, these nests always placed *outside* the building, but under the eaves, sometimes fifty or more in a row and so close as to touch each other.)

51. TREE SWALLOW; WHITE-BELLIED SWALLOW; BLUE-BACKED SWALLOW; STUMP SWALLOW; EAVE SWALLOW. Metallic blue-green above and snow white below, with dark wings and tail, the latter moderately forked. Earliest of our swallows to come and last to go, its stay covering the time from late March to mid-October. Often it comes in immense flocks, scatters to nest and reassembles in fall for its southward trip. Builds a nest

CEDAR-BIRD
Original photograph of museum specimen. Plate loaned by Zoological Dept. M. A. C.

of grasses and feathers, without mud, in any suitable cavity, natural or artificial, but most often uses deserted woodpecker holes in trees or stumps near water. Eggs pure white, unspotted.

52. BANK SWALLOW; SAND SWALLOW; SAND MARTIN; BANK MARTIN. Smallest of our swallows. Brownish gray above, without any metallic luster; below pure white except for a grayish band across the chest. Tail barely forked—almost square. Nests always in burrows in sand or gravel banks, hundreds of burrows often in one colony. The pure white, unspotted eggs are sometimes laid on the bare sand at the end of the burrow but more often there is a shallow nest of grasses, leaves and feathers. (The Rough-winged Swallow closely resembles the Bank Swallow in size, color and habits, but is uniform brownish gray on throat and breast. It is the least common of all our swallows and found rarely if at all north of the Straits of Mackinaw.)

53. CEDAR-BIRD; CEDAR WAXWING; CHERRY-BIRD. This bird is an

odd mixture of good and bad, but with the good very much in excess, and it shows some interesting contrasts and contradictions. Of strikingly beautiful plumage, it is not merely songless but well-nigh voiceless. It is very erratic in its movements, being abundant one season and then perhaps almost absent for a year or two. It is an expert flycatcher and lives largely on insects at certain seasons; yet it regularly braves the rigors of our northern winter and appears to thrive on juniper berries, haws and frozen apples with the mercury hovering about the zero mark. At one time it will appear suddenly in the cherry orchard and cause serious loss by gorging itself with the ripening fruit, while a few days later it may descend in flocks on the pest-stricken apple orchards and render most timely aid in subduing the cankerworm. It nests in all parts of the state, sometimes singly sometimes in little scattered colonies. The nest is a substantial structure nearly as large as a robin's, but built of grasses, bark and roots, without any admixture of mud. The eggs, four to six, are perfectly characteristic, having a ground color of bluish or purplish white, spotted rather sharply but sparsely with brown and black. The pointed crest, yellow-tipped tail, and olive wings without white, are characteristic of this bird at all ages and seasons. The young are strongly striped or streaked below with light and dark gray, but these streaks are lost during the first autumn. The adult of either sex may or may not have red "sealing-wax" tips on the inner wing feathers.

54. MIGRANT SHRIKE; BUTCHER-BIRD; SUMMER BUTCHER-BIRD. In driving along country roads in summer one often sees sitting on a fence or telephone wire a gray bird rather smaller than a robin, with dark wings and tail showing clean white patches. As it flies from post to post, or crosses the field from fence to fence it flies with deep scallops or undulations, like a woodpecker, and the white wing and tail spots are very evident. This is the Migrant Shrike, and a close inspection would show a sharply hooked bill, like a hawk's, but feet and claws more like those of a sparrow or blackbird. It belongs to the famous family of shrikes or butcher-birds, notorious for their habit of hanging up surplus food on thorns or twigs, so that a butcher-bird's "larder" often contains mice, small birds, lizards, grasshoppers and other insects, all neatly impaled on the thorns or the barbs of the wire fence. The Migrant Shrike seldom or never kills small birds, but destroys many large insects and some mice. The nest, made of grass, wool, feathers and various soft materials, is placed almost always in a hawthorne or a wild crab where the spiny tips serve the double purpose of protection from enemies and convenience in hanging its prey. This species comes to us from the south late in March and leaves us again in October, while its larger and more blood-thirsty relative, the Northern Shrike—a much rarer bird—comes to us from the north in late autumn and retires northward again in spring, nesting far beyond our borders.

55. RED-EYED VIREO; GREENLET; LITTLE HANGNEST; PREACHER. Smaller than a sparrow, olive above and white below, with no sharp markings anywhere, except a light stripe over the eye bordered above by a black line, this vireo is far from conspicuous. Yet it inhabits almost every orchard and grove from May to September, and its cup-shaped nest, hanging from the forked twig of brush or tree, is well known to every nature lover who strolls through the winter woods. Wilson Flagg, who calls this

bird the "Preacher," says of the song: "We might suppose him to be repeating moderately with a pause between each sentence, 'You see it—You know it—Do you hear me? Do you believe it?' All these strains are delivered with a rising inflection at the close and with a pause as if waiting for an answer." We have several other species of vireo, all much alike in plumage and habits, but not so common as the Red-eye. This name, by the way, comes from the fact that the bird's iris is usually decidedly red, sometimes brown-red, sometimes almost crimson. All the vireos are voracious insect eaters and among our most valuable birds. They eat many wild berries and are particularly fond of those of the sassafras and spice-bush.

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The wood warblers form a group of great interest including scores

RED-EYED VIREO
Original photograph. Plate loaned by Zoological Department M. A. C.

of species, all exquisitely modeled, dainty, graceful birds, the largest not heavier than an English Sparrow and the smallest little larger than the kinglet and wren. They have slender sharp-pointed bills for probing flower and bud and bark-crevice in search of insects, which form the larger part of their food, though all eat wild berries and some may add a few dry seeds. Almost without exception they feast on plant-lice and the good thus done is beyond computation. Some spend most of their time high up in the tree tops, others confine their explorations to the lower growths, while several species live mostly on the ground. The name warbler is something of a misnomer since their songs, as a rule, are short, feeble, and not particularly musical. Exceptions are found in the Water-thrushes and Ovenbird which sing delightfully. Thirty-seven different species of warblers are credited to Michigan and more than half of them are fairly common at certain times and seasons. All are migratory and many which in the southern counties are only seen

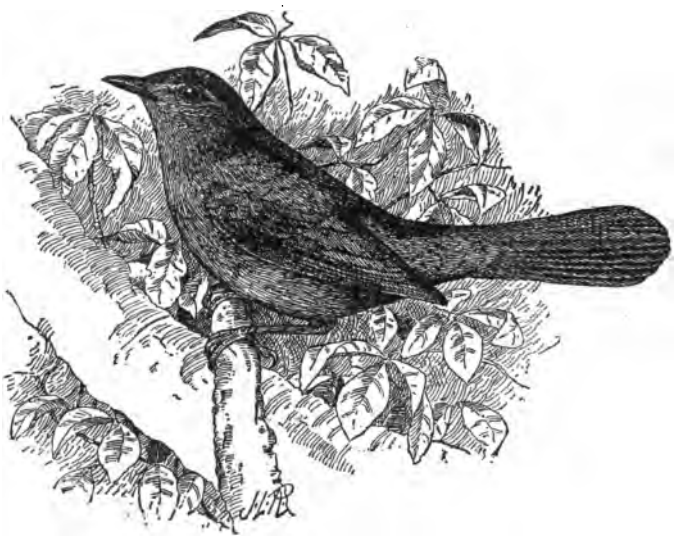
59. MYRTLE WARBLER; YELLOW-RUMPED WARBLER; GOLDEN-CROWNED WARBLER. A central patch of yellow on the crown and another patch of the same color on the rump are good recognition marks for this bird Add a patch of yellow to each side of the breast, with two white wing bars and some white spaces on the outer tail feathers and there can be no doubt of the identification. This is one of the largest of our arboreal warblers and comes to us in large scattering flocks spring and fall, nesting only in the more northern parts of the state. It feeds much on the ground and eats many seeds and berries as well as insects. The name Myrtle Warbler comes from its fondness for the berries of the wax myrtle or bay-berry (Myrica cerifera) of which it is very fond. It also eats the berries of the poison ivy and poison sumac (Rhus) and so helps to spread these pests. The song is a simple little warble which Thompson Seton describes as "'pheo pheo pheo, phew-phee, phew-phee' the first part uttered very rapidly and the last part with more deliberation." This species prefers the vicinity of evergreens and usually makes its summer home among low spruces, balsams and hemlocks about the edges of swamps or along the shores of lakes and streams. The nest is built in some low evergreen, and the eggs are cream colored with dark dots.

60. MAGNOLIA WARBLER; BLACK AND YELLOW WARBLER; SPOTTED WARBLER. This is another common warbler in which the prevailing colors are black, white and yellow, but although like the preceding species it has a yellow rump it has no yellow on the head. Especially characteristic is the dark tail with a broad zone of pure white across the middle, each feather except the middle pair being dark at base and tip with the middle third white. With us, as a rule, May is the month of warbler migration and this exquisite little bird comes with the rush of spring migrants early in the month and passes northward by the first of June. We have no nesting records for the southern half of the state, but north of the Saginaw-Grand valley it nests frequently in suitable places. The well made nest of twigs and plant fibers, lined with black rootlets, is commonly hidden in some small evergreen at a height of three to ten feet. The song is so variable that no two writers agree in regard to it except as to this fact. Stewart Edward White states that on Mackinac Island he "detected seven distinct songs, no one of which was even a variation of the other."

61. CHESTNUT-SIDED WARBLER; YELLOW-CROWNED WARBLER; QUEBEC WARBLER. In this dainty bird the entire top of the head is yellow, but there is no yellow on the rump, and the under parts are silvery white except for a bold stripe of chestnut which runs along each side from neck to tail. An abundant migrant everywhere in the state, and in all but the southern counties a common summer resident. Doubtless a few nest even in the southernmost counties, but the larger number move into the upper parts of the state to breed. It frequents open hardwoods and second growths, showing a decided preference for shrubby fields and the bushy clearings and edges of the forest, but seems to shun the evergreen swamps and the deep woods. The cup-shaped, thin-walled, but strong nest with its speckled eggs is invariably placed in a bush or thicket and seldom more than three or four feet from the ground. Thompson Seton describes the song as resembling the syllables "chip-e, chip-e, chip-e, chip-e, wai-chip," the emphatic and most distinctive note being the next to the last.

parts of the state. The nest is bulky but rather loosely built of grasse sedges and leaves and is usually placed on or close to the ground, o a tussock or in a mass of briars and tangled grasses. The eggs a white with fine dots and scratches of dark brown and black.

65. REDSTART; REDSTART WARBLER; FIRE-TAIL. This handsome litt bird is an abundant migrant throughout the state, as well as a summe resident in all suitable places. The male in full plumage is strikingl beautiful. It has the sides of the breast, a large patch in each win and the basal half of the tail bright orange-red or scarlet, the low breast and belly pure white, and the remainder of the plumage glos black. The female has the red replaced by yellow and the black b olive-gray above and white below. This is one of the fly-catching warble and one of the most restless and energetic of all. It is seldom quiet f



CATBIRD
Biological Survey U. S. Dept. of Agriculture. Plate loaned by Zoological Dept. M. A. C

an instant but is always flitting about, snapping up insects on wing, opening and closing the wings and tail constantly, so that ever conspicuous. It seldom alights on the ground but gets most o food among the trees and always builds its nest in the fork of a bush, sapling, or small tree. The nest is very small and thin-w but compact and fairly durable, being woven out of various fibrou terials and fastened with spider's silk and perhaps other adhe The speckled eggs are commonly four, but as the nest is seldom hidden the Cowbird almost always finds it and adds one or more own much larger eggs. The song is characteristic but too variabl satisfactory description.

66. CATBIRD; SLATE-COLORED MOCKINGBIRD. The slate-colored bi the thickets which mews like a cat, and is known to almost ever ident of the country, is the Catbird, and from the middle of April end of October it may be found in abundance in proper places al

for a few days in spring and fall are regular summer residents in the northern counties where they nest. It is hardly necessary to say that there is great variety in color and pattern of plumage, and since the sexes are often quite unlike and the young different from their parents, while seasonal differences are also great, the beginner must be content for a while to study only the adult males in spring plumage. Some idea of the variety even among these may be had from the statement that among our thirty-seven species, two are black and white only; two black, blue and white; two mainly black and red; four have strong chestnut markings in addition to black, white and yellow; eight are largely olive, with or without black, white and yellow; while twenty-four are strongly marked with yellow in addition to one or more other shades. It is of course impracticable to discuss all these species in detail and we have selected ten of the most abundant and characteristic, giving a few lines to each.

56. BLACK AND WHITE WARBLER; BLACK AND WHITE CREEPER; CREEPER WARBLER. Known at a glance by the peculiar color pattern, the bird being striped and streaked everywhere with black and white; a rather broad white stripe passing through the middle of the crown. Combines the habits of warbler and creeper, usually seen running actively over, under and around the trunks, branches and twigs of trees, in its endless search for insects and their eggs. Arrives about May first, and stays until September. Nests always on the ground, and hides the nest under the edge of a stone, log or root, or by digging a little hollow in a bank. Nest rarely found in the southern counties but common anywhere north of the Grand River valley.

57. YELLOW WARBLER; GOLDEN WARBLER; SUMMER YELLOW BIRD; SUMMER WARBLER. The yellowest of all our warblers and the only one whose tail is mostly yellow. The male has the under parts streaked with brown, but the female is clear yellow below. Universally distributed over the state from May 1 to August 1. Shows a decided preference for the neighborhood of water and is most often found in thickets along streams or ponds or in the shrubbery of parks, lawns and gardens. The nest is built largely of light colored, flax-like materials torn from various weed stalks, and lined with plant-down of various kinds, making a bulky, deep and warm nest. It is commonly placed in the triple fork of a low bush or tree, seldom more than six feet from the ground. The eggs are bluish or greenish white, rather heavily spotted with brown and purple. Frequently confounded with the Goldfinch, for which there is little excuse.

58. BLACK-THROATED BLUE WARBLER. Upper parts dark blue, the throat, breast and sides clear black, the belly pure white; outer tail feathers marked with white patches. A common summer resident of all but the southern part of the state where it occurs as an abundant migrant spring and fall. It feeds alike among the higher and lower branches and seems to have no marked preference for any particular kind of tree, though it nests most often in the "big woods," not in clearings or bushy openings. The nest is built within two or three feet of the ground and usually with little concealment except that furnished by the moss, bark, spider's silk, etc., with which the outside is ornamented. It is compactly built of fibrous materials and lined mainly with fine black rootlets. The eggs are white with dark spots.

59. MYRTLE WARBLER; YELLOW-RUMPED WARBLER; GOLDEN-CROWNED WARBLER. A central patch of yellow on the crown and another patch of the same color on the rump are good recognition marks for this bird. Add a patch of yellow to each side of the breast, with two white wing-bars and some white spaces on the outer tail feathers and there can be no doubt of the identification. This is one of the largest of our arboreal warblers and comes to us in large scattering flocks spring and fall, nesting only in the more northern parts of the state. It feeds much on the ground and eats many seeds and berries as well as insects. The name Myrtle Warbler comes from its fondness for the berries of the wax myrtle or bay-berry (Myrica cerifera) of which it is very fond. It also eats the berries of the poison ivy and poison sumac (Rhus) and so helps to spread these pests. The song is a simple little warble which Thompson Seton describes as " 'pheo pheo pheo, phew-phee, phew-phee' the first part uttered very rapidly and the last part with more deliberation." This species prefers the vicinity of evergreens and usually makes its summer home among low spruces, balsams and hemlocks about the edges of swamps or along the shores of lakes and streams. The nest is built in some low evergreen, and the eggs are cream colored with dark dots.

60. MAGNOLIA WARBLER; BLACK AND YELLOW WARBLER; SPOTTED WARBLER. This is another common warbler in which the prevailing colors are black, white and yellow, but although like the preceding species it has a yellow rump it has no yellow on the head. Especially characteristic is the dark tail with a broad zone of pure white across the middle, each feather except the middle pair being dark at base and tip with the middle third white. With us, as a rule, May is the month of warbler migration and this exquisite little bird comes with the rush of spring migrants early in the month and passes northward by the first of June. We have no nesting records for the southern half of the state, but north of the Saginaw-Grand valley it nests frequently in suitable places. The well made nest of twigs and plant fibers, lined with black rootlets, is commonly hidden in some small evergreen at a height of three to ten feet. The song is so variable that no two writers agree in regard to it except as to this fact. Stewart Edward White states that on Mackinac Island he "detected seven distinct songs, no one of which was even a variation of the other."

61. CHESTNUT-SIDED WARBLER; YELLOW-CROWNED WARBLER; QUEBEC WARBLER. In this dainty bird the entire top of the head is yellow, but there is no yellow on the rump, and the under parts are silvery white except for a bold stripe of chestnut which runs along each side from neck to tail. An abundant migrant everywhere in the state, and in all but the southern counties a common summer resident. Doubtless a few nest even in the southernmost counties, but the larger number move into the upper parts of the state to breed. It frequents open hardwoods and second growths, showing a decided preference for shrubby fields and the bushy clearings and edges of the forest, but seems to shun the evergreen swamps and the deep woods. The cup-shaped, thin-walled, but strong nest with its speckled eggs is invariably placed in a bush or thicket and seldom more than three or four feet from the ground. Thompson Seton describes the song as resembling the syllables "chip-e, chip-e, chip-e, chip-e, wai-chip," the emphatic and most distinctive note being the next to the last.

62. BLACK-THROATED GREEN WARBLER; GREEN BLACK-THROAT. Entire upper parts rich olive green; throat, breast and sides velvet black; cheeks and face bright yellow; two white wing-bars and conspicuous white tail spots. Decidedly fond of evergreens and although found almost everywhere during migration seldom seen during the nesting season at any great distance from the conifers. Doubtless any region well supplied with pine, spruce, or juniper will furnish a summer home for this species, but the larger number surely nest well north of the Saginaw-Grand valley. It appears to get most of its food during the nesting season from the upper branches of the forest trees but the nest is rarely placed more than twenty feet from the ground, more often only six or eight feet up. This is one of the species which sings freely through the heat of the day and its measured, almost monotonous little refrain of "zee, zee, zy-zeé-zee," is a characteristic sound in the pine forests during the hottest days of midsummer.

63. OVENBIRD; GOLDEN-CROWNED THRUSH; TEACHER. One of our largest warblers, but its heavily spotted and streaked breast and sides, together with its terrestrial habits, remind one strongly of the thrushes, and the golden-brown stripe through the middle of the crown seems to warrant the old name of Golden-crowned Thrush. The name Ovenbird comes from the dome-shaped nest, like an old-fashioned brick-oven, which is built of fine grasses woven into an almost globular nest with the entrance through the side. This nest is partly sunken in a hollow among the fallen leaves so that it is rarely discovered unless the sitting bird is flushed by accident. Its ringing song of "teacher-teacher-teacher-teacher," is well described by Burroughs and is one of the characteristic sounds of our summer woods. It has at times an entirely different song, a loud, clear, rapid warbling song which is always given during flight and oftenest in the night. Probably this is the song which many ascribe to the "nightingale," a species which is found only in the Old World. The Ovenbird spends most of its time running about on the ground where it finds nearly all its food, and it has a habit, when curious or disturbed, of walking lengthwise along a branch with the slow, deliberate step of a chicken, often "jetting" the tail in the manner of the small thrushes.

64. MARYLAND YELLOWTHROAT; YELLOWTHROAT; NORTHERN YELLOW-THROAT. Partial to wet places and almost confined to the low growths next to the ground, being rarely seen amid the branches of trees even during migration. Active, restless and inquisitive the Yellowthroat is one of the first to respond to any alarm, and though he may keep well hidden in the tangle of grass and vine his metallic, wiry "cheng-cheng" testifies to his interest and anxiety. The regular song is very characteristic and commonly consists of three bars of three notes each, repeated with great regularity and persistency. It may be expressed by the phrase "which is' it—which is' it—which is' it?" with a strong accent on the middle syllable, "is"; but the next Yellowthroat we meet may be inquiring with equal vim "which' is it—which' is it—which' is it?" with the accent on the first word. The golden yellow throat and chest and the black mask or domino are characteristic, while the olive green back, wings and tail, without distinct bars or spots, afford ample confirmation of the diagnosis. The northward migration takes place in May and the return in August and September, but this species breeds in all

parts of the state. The nest is bulky but rather loosely built of grasses, sedges and leaves and is usually placed on or close to the ground, on a tussock or in a mass of briars and tangled grasses. The eggs are white with fine dots and scratches of dark brown and black.

65. REDSTART; REDSTART WARBLER; FIRE-TAIL. This handsome little bird is an abundant migrant throughout the state, as well as a summer resident in all suitable places. The male in full plumage is strikingly beautiful. It has the sides of the breast, a large patch in each wing, and the basal half of the tail bright orange-red or scarlet, the lower breast and belly pure white, and the remainder of the plumage glossy black. The female has the red replaced by yellow and the black by olive-gray above and white below. This is one of the fly-catching warblers and one of the most restless and energetic of all. It is seldom quiet for

CATBIRD
Biological Survey U. S. Dept. of Agriculture. Plate loaned by Zoological Dept. M. A. C

an instant but is always flitting about, snapping up insects on the wing, opening and closing the wings and tail constantly, so that it is ever conspicuous. It seldom alights on the ground but gets most of its food among the trees and always builds its nest in the fork of a tall bush, sapling, or small tree. The nest is very small and thin-walled, but compact and fairly durable, being woven out of various fibrous materials and fastened with spider's silk and perhaps other adhesives. The speckled eggs are commonly four, but as the nest is seldom well hidden the Cowbird almost always finds it and adds one or more of its own much larger eggs. The song is characteristic but too variable for satisfactory description.

66. CATBIRD; SLATE-COLORED MOCKINGBIRD. The slate-colored bird of the thickets which mews like a cat, and is known to almost every resident of the country, is the Catbird, and from the middle of April to the end of October it may be found in abundance in proper places all over

the Lower Peninsula and more sparingly, but not the less certainly, in the Upper Peninsula. Though the prevailing color of the bird is slate, the crown and tail are black and the under tail-coverts rust-brown. It is a bird of thickets, vine-tangles and hedges and here the nest of sticks, roots, and bark strips is built. The blue-green, unspotted eggs have a deeper shade than those of Robin or Hermit Thrush.

A remarkable songster, second only to his near relative the Mockingbird, the Catbird sometimes sings steadily for a half hour with great variety and sweetness; at other times it interrupts the even flow of song to interject cat-mewings and those odd crackling notes which Bicknell compares to the snapping of small fagots. He is a voracious insect eater, but often seems to show poor judgment, neglecting the insect enemies of orchard and garden to eat comparatively harmless ants and beetles. On the other hand he is an adroit fruit thief and steals cherries, grapes and other small fruits in quantity. Dr. Forbes in 1881 called him at best "a blessing pretty thoroughly disguised," but later investigation shows that even from the economic standpoint the Catbird is a valuable friend of the farmer, while his interesting habits and charming song far more than offset his slight peculations among the fruit trees and vines.

67. BROWN THRASHER; BROWN THRUSH; SANDY MOCKINGBIRD; FRENCH MOCKINGBIRD. Technically both Catbird and Thrasher are wrens, not thrushes, but to the average country dweller, in Michigan or elsewhere, any plain brownish bird with a spotted breast will continue to be a thrush no matter what the books say. In addition to the heavily spotted breast the Brown Thrasher may be recognized by several other points, particularly the rust-red back, wings and tail and the large size—nearly a foot long—though this is due mainly to the disproportionately long tail, since the bird is not as heavy as a Robin. When close at hand a keen observer would also notice the Thrasher's bright yellow eye. Nehrling says "I regard the Thrasher as the finest of our American songsters. It would take the palm even from the Hermit Thrush and the Mockingbird if only its period of singing were longer—unfortunately it is a prominent singer for a few weeks only; later in the season its voice is rarely heard."

Though commonly believed to imitate other birds, that is not the case, its notes are all its own and the performance has as much individuality and originality as that of the Bobolink. Its call notes include a clear soft "hew" or "few," and a sharp explosive "chap" or "schap" which sounds like a hearty smack. Unlike the Catbird the Thrasher is oftenest found in dry situations, in sandy fields, among roadside bushes, and alike among the sand dunes of the lake shore or the wide stretches of the jack-pine barrens. The nest is of sticks and roots, and may be either on the ground or in a low tree or thicket. The eggs are dull white, heavily and uniformly sprinkled with reddish brown dots. This bird's food is much like that of the catbird but its fruit-eating causes little complaint, since it is less common—never abundant—in gardens, parks and orchards, and it usually satisfies its appetite with the wild fruits of the thicket and forest.

68. HOUSE WREN; COMMON WREN; BROWN WREN; WOOD WREN. Whether nesting in a painted bird box, a tomato-can, or a deserted woodpecker hole, the Wren has the same sprightly, jerky movements, the

same scolding, chattering notes, the same bubbling, tumultuous little song, repeated twenty times in succession, and the same unflagging zeal for collecting twigs and cramming them into all sorts of possible and impossible nesting places. The small size, brown color and mouse-like activity will usually suffice to identify this bird, and if watched for a few minutes it is pretty sure to lift its tail over its back in the manner of a hen, a characteristic attitude but one never assumed while singing. It arrives from the south late in April, rears two broods, and disappears again late in September. No bird has suffered more from the English Sparrow than the House Wren, and none responds more promptly and satisfactorily to intelligent efforts for its protection. Put up numerous boxes, of almost any kind so they be sparrow proof, and sooner or later you will have Wrens nesting in them, no matter where you live. A hole seven-eighths of an inch in diameter lets a Wren in and keeps a Sparrow out, but a *slit* seven-eighths of an inch wide is better since it bars the Sparrow just as well and allows the Wren to take in the large and crooked twigs which it delights to use for its nest. Also, place boxes on buildings or on platforms on poles so as to keep out cats and squirrels, and remember that for a bird lover there are no good cats but dead cats. You cannot well feed Wrens, but if you will make your garden or lot safe for them by keeping out cats they will find plenty of food for themselves and your garden will profit by their work. Wrens live mainly on insect food and get most of it from the ground, but when feeding young—often six or eight in a brood—they will go to the tops of your shade trees for plant-lice or span worms.

69. BROWN CREEPER; TREE CREEPER; CREEPER. If you can imagine a tiny brown bird the size of a Wren but with invisible feet and legs and a tail lengthened, stiffened and pointed like a woodpecker's you will have some idea of the Brown Creeper. To find one is another matter, but if you will watch every moving thing in the woods sooner or later you will detect this little bird like a tiny shadow clinging with tail pressed close against the bark of some great tree and creeping jerkily up, up, up, never directly, but always in a zig-zag or a spiral until lost to sight among the great branches overhead. Then after a little you may hear a thin lisping "seet-seet-seet" and the tiny bird will drop or shoot and glide from the top of one tree to the root of another, only to begin another upward climb. During this upward trip the slender, curved awl-like bill is constantly probing the crevices of the bark and drawing out tiny insects, eggs, cocoons and other tid-bits on which he subsists. He has no other food and no other song, and apparently no other aim in life but to measure as many trees as possible in this methodic but irregular fashion. In May or June it will build an elfish nest of twigs and fibers underneath a sheet of loosened bark on some large trunk in the deep woods, and here the creamy white, faintly speckled eggs will be laid and the little creepers will be reared. The Brown Creeper is found all over Michigan and at all seasons, but is comparatively scarce in winter because the larger number go farther south, while in summer the southern counties are partly deserted, most of the creepers going to the more northern counties to nest.

70. WHITE-BELLIED NUTHATCH; WHITE-BREASTED NUTHATCH; COMMON NUTHATCH; CAROLINA NUTHATCH; SAPSUCKER (incorrect). This is another climber which seems to spend most of his life in searching the bark

of trees, but in a very different way from the Brown Creeper. This Nuthatch is nearly as large as a sparrow, with blue-gray upper parts, a blackish crown, pure white breast and belly, and soft dark tail broadly tipped with white. Neither body nor tail is pressed against the bark as with creeper or woodpecker, but the large strong feet and legs are always in evidence as the bird scrambles continually up and down tree trunks, sidles rapidly along the main branches, or runs nimbly under and over them, as often head downward as otherwise. It sometimes explores the smaller branches and twigs, examining dead limbs with special care, but as a rule it is busy trying to wedge food into cracks and crevices of the bark or else to get it out again. Often it may be seen carrying a beechnut or a bit of acorn meat in its bill and if watched will be seen to crowd them into holes or crevices in the trees or into cracks of fence posts or chinks in buildings, where it may possibly find them again in time of need. Insects are eaten readily at all times and as the bird certainly does no harm there probably is a substantial economic balance in its favor. The species is common all over the state and although there may be some migratory movement we find this Nuthatch fully as plentiful in central Michigan in winter as in summer, perhaps a little more so. The nest is built in early spring and almost always a natural cavity, a knot-hole or hollow branch, is used, instead of a woodpecker's hole. Sometimes it nests in March, more often in April or early in May. The usual call note is a rather nasal "hank-ank-ank," and it has a variety of low, querulous notes which are used when associating with others of its own kind, and with Chickadees and Downy Woodpeckers in winter. Particularly in late winter and spring, and occasionally at other seasons, it has a loud, clear rolling cry which is difficult to describe and suggests one of the well known calls of the Flicker. This may be the nesting song of the species.

71. CHICKADEE; BLACK-CAPPED CHICKADEE; BLACK-CAPPED TITMOUSE. Common in winter and summer alike and most conspicuous when the trees are bare and most other birds absent, the fluffy little Chickadee comes freely about dwellings even in towns and cities and is quite generally recognized and protected. Hopping from twig to twig, clinging to the bark of the trunk and large limbs, hanging head downward beneath a branch or swinging on the end of a pine cone, it is always prying into the crevices and folds of bark, bud and leaf and extracting the tiny insects or tinier eggs which are a constant threat to the welfare of orchard, park and grove. Its ordinary call note is well expressed in its name, the song being written "chickadee-dee-dee-dee, dee-dee-dee," the number of syllables being variable and the accent almost equally so. Occasionally the bird utters a series of low twittering notes, but hardly long enough to be called a song. Much more characteristic and musical is a clear, soft, long drawn, penetrating whistle of but two notes which suggest the syllables "pee-wee," the second note being a tone or a half-tone lower than the first. Though sometimes spoken of as the nesting song it is heard oftenest on clear, cold mornings in February and March, long before any preparations for nesting have been made. This note is often mistaken by the beginner for the call of the Phoebe or Bridge Pewee and most of the early spring reports of the Phoebe are probably mistakes of this kind.

The Chickadee normally nests in deserted woodpecker holes, cavities

in decayed limbs or rails, or similar holes in fence posts and stubs. If no such ready-made cavity is found it is quite capable of making one for itself, though even then it probably takes advantage of a beginning already made by a woodpecker in search of food. The nest is always a felted mass of hair, down and other soft substances and the tiny eggs, white with a few brown dots, vary in number from six to ten. Chickadees are easily attracted in winter by suitable food, a bone nailed to a tree trunk, or a few cracked nuts on the window-sill bringing them day after day, together with Nuthatches, Woodpeckers and Blue Jays.

72. WOOD THRUSH; WOOD ROBIN; SONG THRUSH; BELL-BIRD. This is a common summer resident of southern and middle Michigan and possibly of favorable parts of the Upper Peninsula. Unquestionably it has been generally confused with the Hermit Thrush and much that has been written of one really belongs to the other. Both are magnificent songsters and while opinions differ I am hardly willing to grant that either is much superior to the other. Certainly in most cases the songs of the two species are not to be separated except by the expert of wide experience. The birds themselves are much alike, both have rich brown backs and boldly spotted breasts, but the Wood Thrush is decidedly larger (nearly as large as a Robin), the sides as well as the breast are heavily spotted, and the brown of the upper parts is brightest on head and back, paler on the tail. The Hermit is decidedly smaller, has no spots on the sides, and the tail is darker than the back and head. The nests are quite different, that of the Wood Thrush being built always in a bush or tree at some little height from the ground (4 to 20 feet), and always having some mud in its composition; the Hermit's, on the other hand, is always built on the ground and is made of leaves, roots and grasses without any mud. The eggs are alike in all but size, clear blue without spots, the Hermit's being the smaller. Many pages have been written of its song. We quote only Nehrling: "It loves the deep half-darkness of the forest solitude with its peace and quiet. Here we can hear the wonderful, harmonious, flute-like song from early dawn to evening twilight. Were it not for hearing repeatedly the far sounding, delightful *eolie halalee* one would hardly know that this famous vocalist had returned home again. Beside this common song-like call it utters a low *tuck* or *tack,* and a quickly reiterated *tuck-tuck-tuck-tuck."*

73. HERMIT THRUSH; RUFOUS-TAILED THRUSH; SOLITARY THRUSH; SWAMP ROBIN. In addition to what has already been said of this bird (in connection with the Wood Thrush) we may say that the Hermit arrives from the south two or three weeks earlier than the Wood Thrush, often by the first week in April, and it frequently appears in such numbers as almost to justify the use of the word flocks. Most of these birds soon pass on northward and doubtless very few ever nest in the southern half of the state. Nor do they sing until their nesting grounds are reached. In common with the other small thrushes they have a low *chuck* of alarm when disturbed and a characteristic habit of lifting the tail quickly and letting it drop back slowly into place. Most of the food is found on the ground and consists largely of insects, though all the thrushes are partial to snails and myriapods, and all eat wild fruits in season.

Dr. Coues says of the song: "The weird associations of the spot where the Hermit triumphs, the mystery inseparable from the voice of an un-

seen musician, conspire to heighten the effect of the sweet, silvery, bell-like notes, which, beginning soft, low and tinkling, rise higher and higher to end abruptly with a clear, ringing intonation."

74. ROBIN; ROBIN REDBREAST; MIGRATORY THRUSH. This, our most familiar species, should be carefully studied by the beginner, who may note to advantage the scores of characteristic motions, acts and notes which may serve to identify the bird at a distance or in such a light that color and even pattern are entirely invisible. He should note also how the neutral tints of the upper parts blend with the background of dry

HERMIT THRUSH
By W. F. Jackson. Plate loaned by Zoological Dept. M. A. C.

grass, dead leaves, and bare branches; and how the bird may double his apparent size by ruffling the feathers and displaying the red-brown breast to rival and mate, or may shrink and become well nigh invisible at the approach of a danger which may not be avoided by flight. It will help the student to know that the Robin measures nine or ten inches from bill-tip to tail-tip, and may thus serve as a convenient standard of size for comparison with other species.

In average seasons Robins appear in some numbers about the first of March and remain until late in October. In some places "roosts" are formed, particularly toward autumn, and here some Robins linger until late in November unless heavy snow falls to cut off the main food supply.

A few undoubtedly winter in the southern counties every year, and during exceptionally mild winters large flocks may remain.

While the Robin is a general favorite with people as a whole, the small fruit grower complains bitterly of his losses caused by this bird, and the question as to the real value of the Robin—whether the good done by insect-eating fairly offsets the harm done by fruit destruction—has been argued, for more than two hundred years and will probably never be settled satisfactorily to all concerned. That the good done *as a whole* fairly balances the harm done *as a whole,* is very likely true, but the losses fall heavily on a few persons, while the benefits are distributed among the many. The fruit grower's losses can be computed with some exactness but the value of the Robin's song and presence can hardly be expressed in terms of dollars and cents, and it seems likely that in this case the sentiment of the masses will govern and the fruit-grower will have to make the best of an unpleasant situation.

75. BLUEBIRD; EASTERN BLUEBIRD; BLUE ROBIN; BLUE REDBREAST. Known at a glance by the bright blue of the upper parts, including wings and tail, and the deep cinnamon-brown of the breast and sides, only the belly and under tail-coverts being white. This beautiful bird is common in all parts of the state for a large part of the year, arriving and departing at about the same time as the Robin. In spring it is almost invariably seen in pairs, but in late summer and autumn always in little family parties or larger flocks of perhaps half a dozen families. Its beauty, simple but pleasing warble, and its return to us in earliest spring has endeared it to dwellers in town and country alike and rendered it a favorite with nature lovers everywhere. It has no objectionable traits, eats no cultivated fruits, though partial to many wild berries, and is a voracious consumer of insects, of which it eats an immense variety. Its food comes mainly from the ground and so includes some of the beneficial ground beetles, but it also eats caterpillars, cut worms, grasshoppers and a host of others which are always injurious.

It builds a nest of grasses and feathers in a hollow tree, old woodpecker's hole, or bird box, and lays four or five pale blue, unspotted eggs. Formerly it nested in numbers about every village and farm, but since the advent of the English Sparrow it has been driven to seek its home elsewhere and at present is nowhere more abundant than among the blackened or bleached stumps of the desolate plains of the north where it finds congenial food and shelter and freedom from the endless persecution of the Sparrow.

East Lansing, Michigan,
Jan. 30, 1911.

REPORT

OF THE

MICHIGAN STATE COMMISSION ON INDUSTRIAL AND AGRICULTURAL EDUCATION

To the Governor, Superintendent of Public Instruction, and Commissioner of Labor:

INTRODUCTION AND HISTORICAL STATEMENT

Lansing,
December, 1910.

At the annual meeting of the City Superintendents' Association, held in Lansing, April 21, 1909, a resolution was adopted urging the legislature, then in session, to provide for the appointment of a commission whose duty it should be to investigate the subjects of industrial and agricultural education in the state and make a report to the governor and the legislature, with recommendations for statutes which would improve existing conditions. The resolution above referred to was duly presented to the governor and the members of the legislature, and on April 27, 1909, Senator Taylor introduced senate bill No. 310, which was enacted into law as Act No. 228 of the Public Acts of 1909, which is as follows:

"AN ACT

To provide for a State commission on industrial education, including elementary training in agriculture.

The People of the State of Michigan enact:

Section 1. The Governor of the State of Michigan, by and with the consent of the Senate, is hereby empowered to appoint a commission of not less than five nor more than seven members, to be known as the Michigan Commission on Industrial and Agricultural Education.

Section 2. This commission, immediately after appointment, shall organize by choosing from its own membership a chairman and a secretary.

Section 3. It shall be the duty of this commission to make a careful study of the conditions of elementary industrial and agricultural education, whether under public school or other auspices, including the study of conditions of labor as they affect children between the ages of fourteen and eighteen; and it shall further be the duty of this commission to present a report showing these conditions, with recommendations for such a plan of elementary, industrial and agricultural training

in connection with the public schools of the state as shall, in their judgment, best meet the conditions shown to exist; this report to be rendered in triplicate to the Governor, the State Superintendent of Public Instruction and the State Commissioner of Labor, on or before January one, nineteen hundred eleven.

Section 4. The members of this commission shall serve without pay, and the commission shall maintain its organization until July one, nineteen hundred eleven, when said commission shall expire by limitation, unless renewed by subsequent act of the Legislature."

Pursuant to this resolution, and shortly after the adjournment of the legislature, Governor Fred M. Warner appointed a commission of seven members, as follows:

Wellington R. Burt, Saginaw;
Shattuck O. Hartwell, Kalamazoo;
H. E. Kratz, Calumet;
George A. McGee, Cadillac;
Charles H. Johnson, Detroit;
Eber W. Yost, Trenton;
Walter H. French, Lansing.

The members of the commission, having received formal notification of their appointment from the Governor, met in Saginaw on October 28, and elected Walter H. French as chairman and Shattuck O. Hartwell as secretary.

The commission decided that the method of investigation should include personal visits and the use of questionnaires.

The entire commission visited the Burt Manual Training School at Saginaw and examined carefully the methods, equipment and buildings, and also gave especial attention to the work of the trade school, then recently instituted. After having examined carefully the manual training and trade schools, the commission held a regular session and proceeded to select subcommittees who should consider special phases of the work to be done. The committees were as follows:

Industrial and Trade Schools—S. O. Hartwell, G. A. McGee, W. R. Burt, H. E. Kratz.
Child Labor Conditions—Charles H. Johnson, E. W. Yost.
Agricultural Education—W. H. French, W. R. Burt, E. W. Yost.
Rural Education—E. W. Yost, W. H. French, S. O. Hartwell.

The chairman and secretary presented the forms for the several questionnaires which were to be used, and these were approved by the commission.

At the meeting of the State Teachers' Association in 1909 the Association voted to place at the disposal of the commission the sum of five hundred dollars to be used for necessary expenses for traveling and the printing of the report. Friends interested in agricultural and industrial education added five hundred dollars, so that the commission has had a fund of one thousand dollars for necessary expenses, which have been kept within that sum.

Questionnaires were sent to superintendents of schools, county com-

missioners, rural teachers, trade schools and technical schools and through them a large fund of information was secured.

The several committees appointed proceeded with their investigations. The committee on agricultural education visited county agricultural schools in Wisconsin, Michigan and Minnesota; also visited the state secondary schools of agriculture in Minnesota. The members of the committee on industrial education visited a large number of schools including the Hackley Manual Training School, Muskegon; the public schools of Cincinnati, Ohio; Rochester, N. Y.; Worcester, Fitchburg and Springfield, Mass; and the Stout Manual Training School at Menomonie, Wis.

In July, 1909, Mr. H. E. Kratz of Calumet having decided to leave the state, placed his resignation in the hands of the Governor, and the Governor immediately appointed Superintendent Fred A. Jeffers of Painesdale to take his place.

The commission has been materially assisted by friends in other states and by means of public documents published in Michigan and elsewhere. The greatest courtesy has been shown visiting individuals and committees, and for all these kindnesses the commission desires to make grateful acknowledgment. We wish especially to extend our thanks to Superintendent E. C. Warriner of Saginaw for many suggestions, and for the paper on German industrial education which is published as a part of this report. We desire to make special acknowledgment, also, to Superintendent Perry of the Milwaukee School of Trades; Mr. Samuel F. Hubbard of Boston; Hon. L. D. Harvey of Menominee, Wis.; Prof. D. D. Mayne of St. Anthony's Park, Minn.; Mr. Lewis A. Wilson of Rochester, N. Y., and Dr. F. A. Manny of Kalamazoo for information and helpful suggestions given.

The commission has not attempted an original study of the general questions of agricultural and industrial education. In the intense discussion of the last five years, some of the fundamental questions have been settled. We have made liberal use of the studies and experience of other committees in other states, with one aim in view—namely, to present fairly the present status and the present needs of the State of Michigan in the matter of agricultural and industrial training.

Nor do we claim that this is a final word on industrial training in Michigan. We are now in a transition stage in educational matters, especially as relating to public education. This condition affects not only Michigan, but the entire country. The period in which the investigation could take place has been limited, and subjects which might have been touched upon we have been unable to reach for lack of time. We respectfuly submit our findings, and urge the enactment of such laws as will encourage and hasten a readjustment of public education to meet the growing needs of an agricultural and industrial state.

WALTER H. FRENCH,
SHATTUCK O. HARTWELL,
WELLINGTON R. BURT,
GEORGE A. MCGEE,
FRED A. JEFFERS,
CHARLES J. JOHNSON,
EBER W. YOST,
Commission.

DEFINITIONS, CONCLUSIONS AND RECOMMENDATIONS

I. DEFINITIONS

A difficulty at the present stage of discussion of this branch of education is the varying nomenclature and the consequent looseness in the use of terms. Farming is as much an industry as are the trades, but present usage has so narrowed "industrial education" that the term does not include agricultural education. We have endeavored in this report to use each of these terms in the specific and narrower sense. In regard to different kinds of schools also there is a vague terminology. We shall hold to the following definitions:

Elementary industrial or agricultural schools or courses are those established for pupils below sixteen years of age, admission to which does not require completion of the regular elementary grades. Most of the so-called vocational schools and short courses would come under this heading. Manual training schools as at present organized are not included in this definition.

A high school is a school having a four years' course of study above the eighth grade.

Secondary industrial, agricultural or trade schools are those equivalent in courses or age-demands to the ordinary high schools—that is, they either cover with a four years' course the age period of high school students (14 to 18); or, if courses are shorter and intensive, they cover the latter portion of the high school period (from age 16 to 18 or 19).

Continuation schools or courses are part-time schools or courses designed to give workers, old or young, who are already established in the industries, a better knowledge of the special industry and its relations to other activities. These schools may be either day or evening schools, though under present conditions in this country day schools of this type must be slow in development.

The following definitions are taken from the Report of the Committee on the Place of Industries in Public Education (N. E. A., July, 1910):

1. "The secondary technical school, or the technical high school, is a school of secondary grade having the distinct purpose of preparing its pupils for industrial leadership—that is, for positions in industrial life requiring skill and technical knowledge and of greater importance and responsibility than those of the skilled mechanic.

2. "The trade school and the preparatory trade school are schools which have for their definite purpose the preparing of boys or girls for entrance to the skilled mechanical trades and which deal with their pupils during a briefer course and allow for earlier preparation for practical work than the technical high school. Such schools place their greatest emphasis upon practical handwork instruction under conditions resembling as closely as possible those prevailing in commercial practice."

The last definition will be somewhat modified, as shown later in our discussion, since we would add that the reasons for establishing preparatory trade schools seem to relate rather to general pedagogy than to

the trade point of view. Hence we shall preferably use the term elementary vocational schools.

II. CONCLUSIONS AND RECOMMENDATIONS

1. In view of the fact that in many rural districts of the state the school population of single districts is so small and fluctuating that the best school conditions cannot be maintained, we believe that a consolidation of these districts or the organization of the districts in a geographical township into one district will much better conserve educational interests, give equal educational privileges and also tend to economy in administration; therefore the Commission would respectfully recommend the enactment of a township district law for the entire state with the provision for at least one high school in each township.

2. The Commission would recommend the enactment of a law providing that a high school within the meaning of the statute shall consist of four years of work beyond the eighth grade.

These recommendations are made because we believe these things are needed to secure more favorable conditions for success under the recommendations which follow.

3. The Commission would respectfully recommend the introduction as soon as possible of courses in agriculture, manual training, and home economics in all high schools of the state.

4. The Commission recommends that the general school laws be so amended that any village or city having a population of five thousand or more may establish trade departments in connection with the public school system, also may provide for continuation schools.

5. We recommend that a law be enacted providing for the certification of all teachers of agricultural and industrial subjects.

6. State supervision of all agricultural and industrial courses in the public schools should be provided by law.

7. We recommend the enactment of a law providing for a limited amount of state aid for schools which introduce high school courses in agriculture and home economics, or trade schools, or continuation schools, according to the following general plan; and that this state aid should not be more than $500 for each course, or teacher employed.

a. The law granting state aid should provide that the total amount of state aid under the law should not exceed, for the first year, $30,000, for the second year $50,000, nor in any subsequent year $100,000.

b. The apportionment of state aid between courses in agriculture and home economics on the one hand and industrial courses on the other should be equal.

c. Schools applying for state aid must be duly certified to the Auditor General by the Superintendent of Public Instruction, the order and priority of certification to be determined by statute.

d. Any high school in the state in any township or city of less than 20,000 in population may be certified for state aid for courses in agriculture and home economics to the following amounts, viz.: five hundred dollars for the first teacher employed and two hundred and fifty dollars for each other teacher employed, provided that no school district shall receive an allowance for these courses of more than one thousand dollars in all.

seen this to be true so far as the school systems go. It is practically true for all the great industries. Manufacturers in every line complain that a large proportion of the men who come to them as journeymen are lacking in skill and mechanical knowledge. They have gained a bit of experience in one shop, gone to another and gained a bit more, and graduated from a short term of work in the third with the title of mechanic. It is only fair to say that the men themselves are often as troubled by these conditions as are their employers.

Occasionally a great industry will establish apprentice schools of its own. We know of only three such in Michigan—the apprentice schools of the Packard and Cadillac automobile companies in Detroit, and the Grand Trunk railway apprentice school at Battle Creek. These three schools prepare a few boys as draughtsmen or machinists. In general terms adequate training for this class of laborers has not begun. If our estimate of the number of children each year forced prematurely into the industrial ranks is correct, we believe that the need is evident of thorough planning for a training equivalent to the continuation schools of Germany.

The whole question of labor conditions deserves more thorough study. But we are sure that later investigation will only strengthen the conclusion that careful industrial training is demanded as a means of advancement for workers and as a matter of economy for the state.

REPORT OF SUB-COMMITTEE ON RURAL AND AGRICULTURAL EDUCATION

W. H. FRENCH, CHAIRMAN.

The investigation of the subject of agricultural education has been made by special visitations of a sub-committee, together with questionnaires submitted to various agricultural schools and institutions. In many instances it has been found impossible to secure absolutely accurate information. This is particularly true in what may be termed the new field of high school agriculture.

We find five types of agricultural schools and institutions in the United States:

(a) The college of agriculture and mechanic arts.
(b) The state secondary school of agriculture.
(c) The congressional district secondary school of agriculture.
(d) The county school of agriculture.
(e) Public high schools of agriculture.

There is another variety of agricultural school which conforms practically to the state type such as is found in certain schools in Tennessee and New York, sometimes called "attached schools."

The first kind may be called the college type; such institutions were established under the land grant acts of Congress and are generally known as the land grant colleges. Their special function has been to give instruction of college grade in agriculture and the mechanic arts,

silent, except that 55 boys and 62 girls declared that they would have remained in school if they could have secured trade instruction. From this it seems evident that in these cities the present school instruction does not look strongly toward special efficiency in trades. If this is a fact for cities with good manual training schools it must be a fact of great weight in those communities in which no such schools are provided.

Several investigations have been made on the money value of trade and technical training. We quote one of them:

"James M. Dodge, president of the American Society of Mechanical Engineers, sets forth the value of a trade school education. Mr. Dodge urges that an untrained boy of sixteen, in good health, represents a potential value of $3,000.00 on entering a trade school or shop—that is, he is worth to his employer 5 per cent of $3,000.00, or $150.00 a year; that the shop taught lad in nine years has increased this potential value at the rate of $1,300.00 per annum, while the trade-school man's investment in himself has been at the rate of $2,100.00 per annum. The untrained lad will earn $15.00 per week at 24 years of age (and only 5 per cent of this class ever earn any more), while the graduate of the trade school reaches this earning capacity between 20 and 21, and is getting $20.00 a week before he is 24, with unlimited possibilities for the future. Mr. Dodge urges, backing his arguments by facts and figures, that the best investment any boy can make is to 'invest himself,' by increasing his own potential value. This result, Mr. Dodge points out, is gained most thoroughly and effectively by training."

("The Money Value of Training," St. Nicholas, Nov., 1904. Quoted in Gillette, Vocational Education, p. 33.)

Such computations are verified by experience. The record for twenty-five years made by the Hebrew Technical Institute of New York City is convincing. This school takes boys of fourteen for a three years' course. "It aims to train them for the mechanical and technical trades in such a way as will give them a good preparation for such positions as skilled artisans, pattern makers, foremen in woodworking and ironworking shops and in the various electrical industries, and as draftsmen in architects' offices."

At the twenty-fifth anniversary of the school, in 1909, these facts were shown:

	No. living.	Av. weekly income.
Graduates employed 1 year (class 1908)	81	$7 25
Graduates employed 5 years (class 1904)	62	18 00
Graduates employed 10 years (class 1899)	27	29 00
Graduates employed 20 years (class 1889)....	16	40 00

The average wage of the graduates of more than ten years' standing is $38.58 per week.*

No such opportunities for industrial progress are at present given in Michigan. The boys and girls who leave school before they are sixteen years of age almost inevitably remain in the lower industrial classes. There has been little effort to train them industrially. We have

* For a complete table see Dean's "The Worker and the State," pp. 138-140.

seen this to be true so far as the school systems go. It is practically true for all the great industries. Manufacturers in every line complain that a large proportion of the men who come to them as journeymen are lacking in skill and mechanical knowledge. They have gained a bit of experience in one shop, gone to another and gained a bit more, and graduated from a short term of work in the third with the title of mechanic. It is only fair to say that the men themselves are often as troubled by these conditions as are their employers.

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and the graduates of these institutions have become leaders in the agricultural and mechanical world.

The second type, which may be called state secondary schools, are either connected with the state school of agriculture, as at St. Anthony's Park, Minnesota, or attached to special preparatory schools, like Alfred University in New York. The purpose in the minds of those who manage this class of schools is to train farmers, and this may be said also of the congressional district type, found in Georgia, Alabama and Oklahoma.

The county type, as shown in the county schools of agriculture of Wisconsin and Michigan, are special secondary schools having a two-year course of study and admitting students from the eighth grade. The underlying principle of these schools is to bring instruction in elementary agriculture as close to the people as possible, to establish the fundamental principles of the various subjects and to train young men and women for a successful career on the farm.

In the public high school type of agricultural school we find several plans—one the introduction of a one-year course in elementary agriculture into the regular high school curriculum, as in Nebraska, Ohio, and some other states; the other the introduction of a course of study in agriculture consisting of four units which continue through the several grades of the high school as an elective subject. Such schools are found in Michigan, Minnesota, New York and a few other states.

So much may be said by way of general introduction. The result of the investigation of the Commission by the use of questionnaires will be found in tabulated form in another part of this report.

STATE SECONDARY SCHOOLS

The state secondary school of agriculture at St. Anthony's Park, Minnesota, together with the county schools of agriculture of Dunn, Marathon and Menomonie counties in Wisconsin, and Menominee county in Michigan, were visited by a sub-committee. The State School of Agriculture at St. Anthony's Park presents a three years' course of six months in each year for both young men and young women. The subjects offered include domestic science and domestic art and drawing for women, and soils, crops, fertilizers, drainage, farm mechanics, live stock, dairying, entomology and horticulture for the men. The young women are allowed to take certain of the courses in dairying, horticulture and gardening, and every effort is made to make the work simple and practical according to the purpose above stated, which is to render such service as will produce intelligent farmers and farmers' wives. There are two other schools of similar character in the state of Minnesota. The general grade of instruction given is about midway between that of the college of agriculture and the county or public high school work in agriculture. The attendance at St. Anthony's Park during the current year is 500 young men and 200 young women.

The school opens late in the fall and closes early in the spring, the students returning to their own homes to practice the rules and theories which have been presented to them during the school year. No tuition is charged, but regular laboratory fees are required. The entrance requirements are elastic, but the young people are supposed to have completed the eighth grade and to be at least sixteen years of age.

This school at St. Anthony's Park is attached to the State School of Agriculture and State University and therefore is particularly well equipped for its work. The two other similar schools in Minnesota attempt to do the same grade of work, but of course have not the same opportunity and equipment. The work is entirely of a practical nature, and Dr. Mayne, the head of this department reports that a very large percentage of the boys return to farming as a permanent occupation. A few take special interest and continue their work in the regular collegiate course. It should be noticed in passing that schools of this character not attached to well equipped institutions must spend considerable sums for a plant and for equipment, otherwise the work would be limited.

The special committee had no opportunity to visit any of the congressional district schools, but from reports received from them we learned that they are elementary in character. Students are permitted to enter from the eighth grade and receive two years of instruction. These schools are fairly well equipped with apparatus and with trained instructors and are designed to prepare young men for all ordinary farming operations and to give them some insight into the science of agriculture so that they may be reasonably skillful in conducting the affairs of the farm. Typical courses of study such as are found in these schools are given in another part of this report and the character of the institution can be judged somewhat from them.*

COUNTY SCHOOLS OF AGRICULTURE

The law authorizing county schools of agriculture in Wisconsin was passed in 1902. At first two schools were authorized and later the law was made general and the expense for supporting the school is borne both by the county and the state, the state paying four thousand dollars annually and the county the balance. The typical courses of study will be found in the appendix. At the present time there are but six of these schools in operation. The average attendance of boys ranges about thirty and the average attendance of girls slightly above this. The investigation showed that a large percentage of the boys come from the farms, while a large percentage of the girls come from the city or village where the school is located, the course for the girls being domestic science, domestic art and manual training.

The Dunn County School

located at Menomonie, was organized in 1902. The school population of the county is 7,000. The number of boys enrolled during the current year, 47; number of girls enrolled, 46. The entrance requirements are completion of the eighth grade and the minimum age sixteen years. The annual cost of this school is $11,000, of which the state pays $4,000 and the county the remainder. The school is nicely accommodated in a fine two story building, which is equipped with a considerable quantity of apparatus. The value of the apparatus and equipment is estimated at $10,000 and the value of the library at $1,000. Besides laboratory equipment, this school possesses twelve well-bred cows and some

* Appendix B, 1.

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other live stock. There are four instructors, two of whom are graduates of agricultural colleges and two are graduates of special technical schools; these latter instructors have charge of the manual training and domestic science. The present value of the entire plant is estimated at $36,000. There is no land connected with the school, but negotiations are under way to secure a small farm. The length of the course is two years of thirty-two weeks each. During the past eight years nearly two hundred students have been graduated from the school.

In addition to the regular agricultural subjects, some instruction is given in English, arithmetic, bookkeeping, history, physics, and chemistry. Twenty of the students during the current year are non-residents of Dunn county. The expense per student for board and room runs from $3.50 to $4.50 per week. The manual training shop is equipped with tools and benches and the work is confined to practical exercises. A course in blacksmithing is given during twenty-four weeks, two hours a day. The average age of the present enrollment is nineteen years. During the winter months each year a short course of several weeks is given for the farmers of the county. These short courses will include dairying, poultry husbandry, corn raising, and domestic science. Special lecturers are employed for this work.

Marathon County Agricultural School, Wausau, Wis.

This was the first school established under the law of Wisconsin authorizing county schools of agriculture. The school is located on a plat of ground containing about seven acres. The school population of the county is about 15,000 and there are sixteen villages and cities in the county maintaining high schools. The number of boys enrolled, 17; the number of girls, 32. The ages of the students range from fourteen to twenty. The annual cost of this school is about $7,000 and its revenues are derived from the same sources as the Dunn county school. The value of the plant is about $40,000. The equipment is valued at $2,500, and the library at $1,000. The course of study is practically the same as in Dunn county and three regular instructors are employed. The superintendent stated that 50 per cent of the girls usually come from the villages and city. It was estimated that at least 90 per cent of the boys return to the farm. On inquiry we found that the people of the county are not particularly interested in higher education. Very few children from the county are attending high schools or college. The expense of students for room and board here runs from three to four dollars per week. This school has graduated 56 students during its existence and there are thirteen in the graduating class of the current year. Short courses are conducted the same as in the Dunn county school.

The equipment in these county schools of agriculture consists of a limited amount of apparatus for physics, chemistry and soils, the ordinary equipment for a manual training shop, and cream separators, Babcock tester, and other apparatus for work in dairying. There is sufficient equipment for practical elementary instruction in the several agricultural subjects.

The other four county schools of agriculture in Wisconsin have practically the same courses of study and are managed in a similar way.

The two mentioned are the oldest and are selected as being typical of what the county school of agriculture could be.

The population of these counties is largely German and Scandinavian. It was found that in these counties a very small percentage of young people from the rural districts attend the public high schools, their education practically being completed in the rural schools so that in almost every case the young people who attend the county school of agriculture would not have attended any school beyond the rural school had it not been for this special opportunity. The average per capita cost per student in these schools ranged about $130 per year and the number of students attending, as above stated, would come from an average school population of about 8,500 children, so that the number attending these special schools is very small as compared with the school population of the county. However, from the statement just made, that few of these young people would have attended any institution of learning other than the rural school, it would seem that the special county school of agriculture does perform an important function in the educational system of the counties where located as well as in the state.

Menominee County Agricultural School, Menominee, Mich.

This school was established under a special act of the legislature in 1907. The law authorized the board of supervisors to appropriate money for the organization of the county school of agriculture and domestic economy. The issuance of bonds in order to raise the necessary money was made subject to the vote of the electors of the county. The board of control consists of five members one of whom is the county commissioner of schools. The board has the usual powers given to boards of education and the law makes it possible that two or more counties may unite in establishing such a school. Under the original act the county was required to provide buildings and equipment and maintain the school. This law was amended in 1909 in such a way that the state now provides two-thirds of the expense for its management and not to exceed four thousand dollars in any year. The city of Menominee donated 107 acres of land to the county and the original appropriation for buildings was $20,000. The entire population of the county is 38,000 and the school population 9,000, about one-half of which is in the city of Menominee. The entrance requirements are placed at completion of the eighth grade, but are somewhat elastic for older students. Number of boys enrolled during the current year, 18; number of girls, 38. The annual cost of the school is about $7,500; the present value of the plant is estimated at $65,000; the apparatus at $1,000, and the library at $300. The school has graduated 18 students and 11 completed the course in June, 1910, three of whom were boys. The length of the course is two years of nine months each, and three regular instructors are employed. The school is well equipped for manual training and domestic science work and has a fair equipment for agricultural work. The apparatus for instruction in dairying is particularly good. The institution owns several cows, horses, and other live stock and poultry, and the laboratory work is supplemented by observations on nearby farms. During the current

year a short course for farmers was conducted through eight sessions with special lectures. The superintendent estimated that about 500 farmers attended these courses. During the past year a dormitory has been constructed which will accommodate all of the students. The expense per student for room and board is about $3.50 a week.

The population of Menominee county is largely foreign. There are several graded and high schools but very few children from the rural districts attend them. The county commissioner of schools stated that in his judgment very few of the children who attend the county school would be in school anywhere were it not for this institution. The instruction in the several departments is excellent, the purpose being to train young men and women for actual life on the farm.

GENERAL OBSERVATIONS ON SPECIAL SCHOOLS

The investigations of the committee and the answers to questionnaires show that it is the purpose of those in charge of these schools to provide elementary training which shall interest young people in agriculture and if possible train them for the vocation of farming. We have shown that in the counties where these special schools are established the rural people are not generally inclined to high schools and to secondary instruction. They seem to be interested only in their vocation and in the business of making a living; as soon as the child is old enough to work, the need for education practically ceases in the eyes of these people. Under these circumstances the special school seems to attract some attention and evidently does a much needed work. It would seem that both in Wisconsin and Michigan the policy of establishing special secondary schools was inaugurated before any effort was made to introduce vocational courses into the public schools. The figures given above show that about 1 per cent of the pupils of Dunn county and three-tenths of 1 per cent of the pupils of Marathon county attend these schools. In Menominee county, Michigan, the attendance is approximately six-tenths of 1 per cent. The annual expense for each school averages about $7,500. When we consider the number of school children, the number of high schools and the results so far secured from the special school it is pertinent to consider whether it would not be better educational and business policy to make a strong effort to interest the people more thoroughly in the public schools, and especially in the high schools, and introduce therein special or vocational courses rather than to organize a separate and special educational system for secondary vocational instruction.

PUBLIC HIGH SCHOOL AGRICULTURE

The typical cases of this class of schools are found in Minnesota and Michigan, and through questionnaires we secured information from the schools at Albert Lea, Canby, Glencoe, Lewiston, and Red Wing, in Minnesota. There are ten high schools giving regular courses in agriculture with special instructors for these subjects. We shall compare the schools in Michigan with those mentioned above in Minnesota. By reference to the tables it will be found that these places in Minnesota range in population from 900 to 12,000. The enrollment in the high schools ranges from 34 to 243. The number of boys fourteen to

nineteen enrolled ranges from 18 to 90, and the number of boys taking agriculture ranges from 17 to 39. The course in agriculture pursued in these schools includes botany, farm crops, carpentering, horticulture, poultry, blacksmithing, entomology, and live stock. The reports show that in each case there is a small tract of land for the use of the school and that the agricultural instruction is given at comparatively slight extra cost; but it should be noted that the figures given in the table include as extra cost the purchase price of land, which would become a permanent improvement and ought not to be charged to annual per capita cost.

The instruction in each of the ten schools mentioned above is given by one special instructor in agriculture and in addition to the regular work done in the school a special short course is presented during the winter months for the farmers of the surrounding community. The tables indicate that the attendance at these courses was good. The subjects presented were such as to reach especially the conditions in each case. It is too early to judge definitely of the effect of this instruction, but if the policy is continued we may safely predict that it will become a strong educational and industrial factor in each community.

The state of Minnesota has taken advanced ground in regard to industrial education. The Putnam Act, passed by their last legislature, provides for the introduction of courses in agriculture, manual training and domestic economy in the high schools of the state, in graded and consolidated schools, and authorizes rural schools in the vicinity of such schools to become associated with the high schools for the purpose of receiving instruction in these special courses. The law provides that the instruction in these courses shall be free to all residents of the state, and that instruction shall be given in all the subjects pertaining to agriculture and domestic economy; also that trained instructors shall be employed and that each school must own a tract of at least five acres of land. The state appropriates an amount equal to two-thirds of the actual expense of this special instruction, but the appropriation cannot exceed $2,500 per year for any school and not more than ten schools can be established the first year nor more than ten additional in each succeeding year. It is too early to determine the absolute value of this departure in education, but it is the clear purpose of the people of Minnesota to have the so-called practical or vocational subjects within the reach of every child in the state, and it remains for the schools and teachers to present this kind of instruction in such a way that it shall commend itself to the people of the state. From every county in Minnesota where agriculture has been introduced in the high school courses of study we received extremely favorable reports concerning the work—from teachers, students and farmers—thus showing that the work is appreciated, that the attendance is increased, and that its value is discoverable even though the schools have been in operation such a short time.

HIGH SCHOOLS OF MICHIGAN

During the current year regular courses in agriculture will be given in eleven high schools of Michigan. The subjects included are agri-

cultural botany, farm crops and horticulture, live stock, dairying, soils, poultry, live stock improvement and feeding, farm management and farm mechanics. These subjects are organized as units in each year of the high school course—agricultural botany being given in the ninth grade; farm crops, elementary soils, horticulture and insect life of the farm in the tenth grade; live stock, dairying, and soils in the eleventh grade; live stock improvement and feeding, poultry and farm management in the twelfth grade, the combination for each grade counting as a single unit and the entire work being elective.

Reference to the courses appended hereto will give a comparison of the character of the courses in the different states. From the Michigan figures it will be noted that the population of the district ranges from 650 to 6,000, thus making the high schools of Michigan compare very favorably with those mentioned above in the state of Minnesota. The enrollment in these high schools ranges from 67to 280, and the number of non-resident students attending from 26 to 80. The number of boys enrolled in these high schools ranges from 29 to 133 and the extra cost of instruction in agriculture from nothing to $400 per year.* The amount of land used for experimental purposes is small, in some cases no land at all having been used, but it should be stated in this connection that observation and work on the home farms supplement the work of the school. The tables above referred to give a list of special experiments performed by the students together with items observed on their trips to neighboring farms. A considerable part of the regular equipment for work in botany, physics, and chemistry is utilized for experiments in agriculture. Each school has provided additional special equipment at comparatively small expense for work in soil temperatures, soil testing, seed testing, plant propagation, and dairying. The work in farm machinery and farm mechanics is presented by careful observations and work on the premises of some dealer in agricultural implements, also in blacksmith shops. Special observation and experimental work has been done in almost every case concerning farm crops, especially corn, potatoes, and legumes. Thus it will be seen that laboratory facilities are provided at comparatively small expense. The regular library has been supplemented by the purchase of farm papers and magazines and reference works on the various agricultural subjects. This material is not only for the use of students in school but can be drawn upon by the parents at home if desired. The instruction is given by graduates from the Agricultural College.

In connection with the work in the high school, extension courses are presented during the winter months for the farmers of the surrounding community, the regular instructor in agriculture taking a large part in this work. Lectures from the Agricultural College are provided, if requested. The tables heretofore mentioned show that the number of lectures averaged seven in each place and that the attendance ranged from fifteen to sixty farmers during the entire course. This instruction is designed not only to assist the farmer but to interest him in the general work of education and make him a partner with his son in education as well as vocation.

*In explanation of the extra expense it is proper to say that in one or two cases the special teacher of agriculture taught the regular sciences in the high school and therefore the expense for instruction was not increased over what it would have been had a regular science teacher been employed, who did not teach agriculture.

The effects of this work after two years of experience are found to be good. Great interest has been stimulated in the school and in the general welfare of the community. In every case the attendance at the high school has increased, and the high school authorities attribute the increase almost entirely to the introduction of the agricultural courses, the increase in attendance coming largely from the rural districts.

The general plan of agricultural work in the Michigan and Minnesota high schools is to emphasize the four leading phases of agriculture, plant life, animal life, soil fertility and farm management, and in doing this the farms and farming appurtenances of the surrounding community are utilized in connection with laboratory experiments in the schoolroom. The attitude of students and patrons of the schools is thus far extremely favorable. The work of introducing agriculture into the high schools of Michigan was begun in the fall of 1908 with one high school.

It is proper to call attention to the fact that the work done in Michigan by way of introducing agriculture into the public high schools has been accomplished thus far without the stimulus of state aid. The credit is entirely due to the Michigan Agricultural College and its interest in the public schools has been manifested in this way. The college created a department of agricultural education and one of the features of the work of that department is to assist in the introduction of agricultural courses in the public schools.

RURAL SCHOOLS

In addition to personal inspection, questionnaires were submitted to county commissioners of schools of four typical counties of Michigan —Branch, Ionia, Muskegon and Saginaw—with the request that the commissioner should make personal investigation and report the conditions of his county according to the questionnaire. He was further requested to give statistical information from a typical township in his county. The aim of the questionnaire was to determine the educational and labor conditions of rural districts. Accordingly we secured the school census of boys in rural districts fourteen to nineteen years of age, the enrollment in school of the same ages and the number of boys employed on farms. We desired to secure information, also, as to the number of boys between the ages of fourteen and nineteen who leave the farm permanently each year and go to the city for employment, also the attendance at high school. The county commissioner was also requested to secure practically the same information from a typical township in his county, with the added information as to the number of boys in the township who intended to remain on the farm and who have had no special instruction in agriculture; also the average wage for farm labor.

Reference to the statistical tables will show that the school population in the above named counties, exclusive of villages and cities, ranges from 765 to 1,956; that the enrollment of boys fourteen to nineteen years in rural schools ranged from 282 in Muskegon county to 489 in Saginaw county, and it should be noted that this number was made up almost entirely of boys from fourteen to sixteen, inclusive. Very few

boys over sixteen years of age attend the rural schools. It is reported that the number of boys fourteen to nineteen years of age regularly employed on the farm in the foregoing counties ranged from 103 in Ionia county to 950 in Saginaw county. At the same time it should be noted that the number of boys fourteen to nineteen attending high schools in these counties ranged from 34 in Muskegon county to 277 in Branch county, and that the number of boys preparing for college ranged from 15 in Saginaw county to 100 in Branch county.

The information found in the tables from the typical townships shows that in Guard township of Ionia county there were 48 boys in the rural school census fourteen to nineteen years of age, 33 in Berlin (Ionia county), 46 in White River (Muskegon county), and 50 in Tittabawassee (Saginaw county), and of this number 31 attended rural schools in Guard township, 10 in Berlin, 12 in White River, 10 in Tittabawassee; from the same townships the number of boys fourteen to nineteen attending high school was 7 in Guard, 4 in Berlin, 4 in White River, 5 in Tittabawassee. It will be noted, too, that the number of boys of the same ages who intended to remain on the farm and who have had no special instruction in agriculture was 10 in Guard township, 15 in Berlin, 25 in White River, and 28 in Tittabawassee, and that the wage at farm labor in these townships averaged a little less than twenty dollars per month.

The one-room school has performed a large part of the education of the people in the past, but with the changed conditions in the country and improvements in all forms of industry, and especially in agriculture, such a school has become less and less able to meet the needs of the present generation in preparing it for life's duties. In these schools we find a very small amount of apparatus, small school yards and only one instructor, and it is therefore practically impossible for the rural school to enter upon the field of vocational instruction. The most that it can possibly do is through the introduction of elementary forms of hand work, domestic art, nature study, and the elements of agriculture to develop a respect for vocation. All these subjects must be taught as incidental because of the absolute necessity of training the children in what may be called the regular or academic subjects, such training being designed to give them the power to gather thought from the printed page and to make such computations as are necessary in the everyday affairs of life. Of these things the rural school should give to each child a very definite possession. If the rural school does its elementary work well it may have served its purpose, but it can not and will not fully meet the needs of the rural population.

From the information given above in regard to the effect of agricultural courses in public high schools, where it has been shown conclusively that in introduction of such courses increases the attendance in the high school, especially of boys fourteen to nineteen years of age, we may conclude that if in all rural townships there were high schools presenting courses in agriculture an opportunity would be afforded to those boys who intend to remain on the farm to receive special agricultural instruction and at the same time a larger number of them would be attending school and securing much needed information. These conclusions convince us of the desirability of establishing township high schools wherever high schools are not already

accessible to all rural children. For this reason we have introduced in our recommendations a provision for township schools and high schools.

The vital statistics shown by the government census indicate most conclusively that the daily or monthly wage of a man increases almost directly in proportion to the amount of his educational training and particularly in regard to the amount of technical instruction or training which he may have received. This being true, we may conclude that these same boys in these rural townships, when compelled to earn their living, could, through the special instruction possible in high schools, prepare themselves for a higher present wage and of course a proportionately increased wage through life. Thus, from the money standpoint alone, it can be seen from the figures submitted herewith that special agricultural and industrial instruction is valuable and will promote the welfare of the rural community.

REASONS

The following reasons may be given for introducing agricultural courses into public high schools:

1. The student body is annually recruited from the rural population.
2. The courses of study are easily modified.
3. Laboratories and equipment need only slight modification.
4. They cannot injure the special schools because they do not give the same class of instruction.
5. Agriculture is a vocational subject for those intending to live on the farm and a cultural subject for all others. Not the subject but its use determines its value.
6. There is a distinct gain in the value of the work done in the other sciences presented in the high school because of opportunity for practical application through agriculture, and thus the training will become a vital part in the mental equipment of each student, and he will be led to inquire and experiment for himself.
7. Students are encouraged to receive this agricultural instruction in their own school, thus saving the expense of living away from home.
8. Agriculture can be taught in the high school without the necessity of duplicating subjects and equipment, as would be necessary in the special school.
9. The results are practical so far as actual farm operations are concerned.
10. It has been shown that this instruction develops the thinking and judging powers of the student as thoroughly as any other subject taught in the school.
11. Agriculture, like other industries, must be taught as a science and as an art in itself and not as related to other subjects or sciences.
12. The presentation of agriculture as a subject of study raises it at once to the same plane as other subjects taught in the school and dignifies both the science and the art.

CONCLUSIONS

In considering any plan of complete industrial education we must include agriculture. From the investigations already made it appears

that there is a two-fold problem in all industrial education: (a) To so teach applied science that we do not weaken its power as a tool for research; (b) to so modify our courses of study that we do not lessen their real school value, or what may be termed their cultural and disciplinary value, and yet at the same time benefit the industrial classes.

The fault in our present system of education is largely in its traditions, not in its ideals. We must cherish high ideals but it is perfectly proper to remove and destroy traditions which have become outgrown. It is claimed by some that the introduction of industrial courses into the public schools will commercialize them. It does not occur to us that this is an argument, because if there is any such danger, and we realize it, the means will be found to avoid such results. Without doubt, mistakes will be made in this new movement, because no uniform definite plans are in operation and the time which has been given to the test is insufficient to determine absolute results.

Of the types of schools mentioned at the beginning of this discussion, the state or college type has, without question, demonstrated its value and performed its function. It does not appear that we need more agricultural institutions of college grade, but the moment we get away from the college grade we find ourselves on uncertain ground because we have as yet found no absolute definition of secondary agriculture. From the types of schools mentioned it would appear that the college type would rank first and that the special state school would rank second, the congressional district school or attached school third, the county school of agriculture fourth, and public high school agriculture fifth. Yet we find all of these subordinate institutions claiming to give instruction in secondary agriculture and our nomenclature immediately becomes confusing. The results of the investigation show conclusively that the same grade of agriculture is not and can not be taught in the public high school or special county school as can be taught in the special state or congressional district school.

It seems to be clear:

(a) That industrial education should provide for training the boy in manual arts and agriculture and the girl in domestic economy.

(b) That the elementary schools or rural school cannot train for vocations because of their limitations, but that they can give certain instruction which shall result in at least a respect for the several vocations.

(c) Industrial training in its narrow sense is not so important for rural schools because country children still have a chance to learn of certain industries at home and children may be given school credit for industrial tasks performed at home.

(d) Secondary agricultural education is here to stay because economic conditions demand it, and public schools supported by public taxation should serve the public; they can do this best by at least presenting enough of agricultural training so that young people may learn to do things and at the same time discover their own vocational traits or tendencies.

(e) Only a small per cent of our high school graduates enter college, therefore the high school course of study must offer at least two

fields or prepare for two fields: (1) higher training; (2) practical life.

(f) The public high schools in the last twenty-five years have made rapid improvement and have come into popular favor. This is shown by the fact that the attendance in that time has more than quadrupled and that the percentage of boys enrolled in high schools has increased by nearly the same ratio. Therefore the present demand of the people that these high schools shall attach certain subjects must be heard and observed.

(g) Probably the quickest way to secure agricultural instruction of secondary grade is through the establishment of special schools. The foregoing discussion, however, shows that the establishment of such schools will necessitate the duplication of buildings, equipment and instruction to a very large extent and thus ultimately make the expense attending such schools very great, if not beyond the limit of public taxation.

To summarize, therefore, we may say that:

(1) The state colleges of agriculture and mechanic arts are fulfilling their mission.

(2) That special secondary schools of agriculture of the state and county type may serve the public best in certain localities but with a comparatively high per capita cost.

(3) That the secondary agricultural high school of the public type may serve practically all of the people of any county or state with a moderate expenditure for buildings, equipment and instruction.

(4) Secondary courses in agriculture should emphasize four fundamental units: (1) plant life; (2) animal life; (3) soils; (4) business agriculture; and regular courses in these subjects should be made a single unit in each year of the regular high school course.

In Appendix B will be found typical courses of study in special secondary agricultural schools, also in public high schools, which will be interesting by way of comparison.

REPORT OF THE SUB-COMMITTEE ON ELEMENTARY INDUSTRIAL EDUCATION

S. O. HARTWELL, CHAIRMAN

Industrial training, in its beginnings and in the realization of its needs, is not so new a subject as we may think. It is as old as the industries themselves. But as new occasions teach new duties, so the readjustments of society bring to words new meanings. The industries, as we now use these words, are essentially modern, at once the realization and the product of those immense forces that are the truisms of modern life though of most recent application, transportation by power, and transported power. These have made possible the factory system, the mechanical development, and the minute subdivision of labor, which make the industries of today an entirely different thing from their parent occupations of a century ago. So industrial education in

the more restricted present use of the phrase is a comparatively new topic; elementary industrial education is still younger. We might find in the history of the last century many investigators and some experiments, but popular discussion has been, in this country, a matter of the last decade. Yet it has spread so widely and rapidly that fundamental arguments are well understood.

It is needless now to enlarge upon the need for supplementing the present education of the schools with training that shall increase the practical efficiency of all classes of hand workers. The desirability of such training has long been admitted; that it is necessary in the United States, if our laborers are to maintain a respectable position in the various crafts, has been clearly demonstrated by many disputants. The right, the duty, indeed the privilege of the public to maintain such training as an integral part of its general system of education may still need supporters but has passed the point of requiring argumentative proof. It is the duty of this committee to consider the general question as it relates to Michigan.

INDUSTRIAL CONDITIONS

Michigan may still rank as an agricultural state and in our belief has possibilities in agriculture far above any yet attained, but it needs only a casual view to show that in its combination of the three great activities—agriculture, manufacturing, and mining—it is in many respects unique among the states. Already its diversified commercial interests have linked the productive energies of the state with almost all lines of industry, and the chances for growth and progress in many departments of manufacturing are as great as the chances of improvement in the tilling of the soil.

While no longer in the central wheat belt, the state is still a large producer of the staple grains—wheat, corn, and oats. Its fruit is known all over the country and the industry of fruit raising seems just now to be entering on a second period of growth. Michigan potatoes reach the markets of Florida and Cuba, and Michigan beans are largely consumed in Boston. In mining one has but to mention Calumet and Hecla to know something of the great record of the state in the production of copper. The iron mines of the Northern Peninsula, the coal mines of the Saginaw Valley, and the salt wells found at many points of the lake coast from Delray to Manistee exemplify the prominence Michigan has as a producer of minerals. Of silver and gold its rocks seem to contain little, but the store of wealth already realized through its minerals and metals is enormous—and the tale is not yet told.

In manufacturing there is a great range of staple products and a chance for development that is still greater. Michigan is at present manufacturing half of the annual output of automobiles in the United States. Detroit has great stove foundries, great car shops, and ship yards. In spite of the necessity for carrying much of the raw material from distant states, Grand Rapids still holds a leading place in the manufacture of furniture. The Kalamazoo Valley is as noted throughout the west for the paper industry as Holyoke is in the east. Battle Creek sends threshing machines and cereals around the world. All sorts of manufactured wood, from matches and pie plates to buggies and

billiard tables, are here produced, and work in metal is growing fast. The central situation of the state, with great markets east and west and great stores of its raw materials to the north and south, increases its chance for productive development. The state is a center for the development of electricity from water power, while its transportation routes and connections, whether by water or rail, furnish unrivaled chance for a mercantile growth far above anything yet attained. The greatest present drawback we share with other industrial states—the lack of a number of skilled artisans sufficient to increase to fuller capacity the present activity of its typical manufacturing centers. Steady growth can be maintained only through systematic training of handicraftsmen. To realize the necessities of Michigan in the general question of industrial education one has only to take the map and pick out for himself the centers of manufacturing already developed and the centers of power waiting for work to do. Then he may study any one of them and find out that capital is waiting for investment in the skill and character of helpers. This does not mean that we have not at present a high class of labor; it means that this state, like others, has not enough skilled laborers to fill its needs. And at present little is being done to insure the succession of skilled artisans.

CONDITIONS OF INDUSTRIAL EDUCATION

Some of the grounds for the judgments here briefly stated are shown in the appendix, where the statistics gathered by the committee are given, with a brief report of schools visited. In summary, we may say that, so far as technical education in its higher departments is concerned, the state has been in some respects a pioneer, and technical training under public auspices is already well developed. The Michigan Agricultural College was the first state agricultural college established and its influence is still felt throughout the country. The Michigan Mining School has a national reputation, as have the engineering departments of the University and of the Agricultural College. But practically all the work of these institutions is of college grade. Few or none of their graduates, to use the well-worn metaphor, enter the ranks of industry. They are captains and engineers. When it comes to the training of subalterns and the instruction of privates in the armies of skilled labor the state of Michigan is doing nothing and its local communities little more. Manual training as a part of the school curriculum is well established in the cities of the state but, as has been frequently shown, it does not meet this problem. Well equipped manual training high schools at Muskegon, Saginaw, Ishpeming, Calumet and a few other cities are furnishing some foremen in industrial lines, but they send comparatively few people into the trades. A study of the graduating list of the Kalamazoo High School shows that 26 per cent of the graduates of the last five years have shaped their courses in higher institutions through their interest in manual training, but it shows only forty people out of the list of 343 at present engaged in any line of skilled manual labor other than teaching the manual arts. This may be taken as typical of the other manual training courses. Of trade schools there is just a beginning. Through the interest and generosity of Honorable W. R. Burt, East Saginaw established in

1910 a trade class for boys and there are now thirty-two boys in the first two years of its four-year course. The late Honorable Arthur Hill left a generous bequest for the establishment of a trade school and technical high school in West Saginaw. In a pamphlet published this year Superintendent Philip Huber gives the following recommendations regarding courses to be established as soon as the building is completed:

"The aim of the school is—

1. To prepare youth of both sexes for a definite vocation and for efficient industrial citizenship.

2. To give the boys between the ages of fourteen and sixteen an opportunity to learn the elements of trade, and to increase their earning capacity—a training which they could not hope to acquire if they started to work as unskilled apprentices.

3. To help men and women already engaged in a vocation to better their condition by increasing their technical knowledge and skill."

Ishpeming reports trade classes in carpentry and painting in connection with its manual training school. Muskegon gives a valuable technical training in its high school, but, except in printing, has no well defined trade courses. Evening schools giving some trade subjects have been developed by the public schools in several of the cities in both peninsulas; but these cannot, in the nature of the case, meet the main problem.

The Y. M. C. A. in 1909 reported four centers in the state where instruction in industrial and technical subjects is given under its auspices, viz.: Detroit, Grand Rapids, Jackson and Lansing. At Detroit the Y. M. C. A. has established a day school under the name of the Detroit Technical Institute, which has this year been incorporated as a separate institution. It has six departments besides the summer school and night school. Two of these are the trade school and engineering department, in which a co-operative course has been begun. In November, 1910, there were enrolled in the plumbing class, 25; in watchmaking, 14; engraving, 10; gas-engine class, 26; mechanical drawing, 125; architecture, 45; co-operative engineering, 26; classes in pharmacy and commercial work enrolled 10 and 26 students respectively. These students range from eighteen to twenty-eight years of age and pay tuition ranging from $20 to $100 per term. There are twenty-six boys under eighteen employed during the day who are taking night school work in eighth grade studies.

Probably the most authoritative list of industrial schools yet made is found in Bulletin No. 11 of the National Society for the Promotion of Industrial Education, in which the schools are classified as follows:

1. Intermediate Industrial, Preparatory Trade or Vocational Schools.
2. Trade Schools (Day Courses).
3. Technical Schools (Day Courses).
4. Apprenticeship Schools.
5. Evening Schools, giving (a) Technical and (b) Practical Shop Courses.
6. Part Time Schools.
7. Trade Schools for Colored Races.
8. Correspondence Schools.

Under the first heading twelve schools are described, of which one is

in Columbus, Ga.; three are in Massachusetts, and eight in the State of New York. Of public trade schools nine are listed, in six different states (all established since 1905). Twenty-one trade schools on private foundation are described, of which six are in Greater New York, while the remaining fifteen are scattered in nine other states. Of the six public technical schools, four are in Massachusetts, while ten supported by private funds are divided among seven states. In the sixth subdivision three part-time schools are mentioned, two in Massachusetts, one in Cincinnati, Ohio. These are the groups of special interest in this discussion. Of the sixty-one schools included, New York, Massachusetts and Pennsylvania together have thirty-eight, and our neighboring states—Ohio, Indiana, Illinois, Wisconsin—each have one or more. Michigan has none. In fact, the only mention of Michigan is in connection with Y. M. C. A. schools.

Evidently the beginnings we have described have been too recent or too slight to secure attention of the compilers, who also would undoubtedly class four of the excellent schools we have mentioned (at Muskegon, Saginaw, Calumet and Ishpeming) as manual training schools, now carefully differentiated from trade schools and not classified in the list quoted.

Hence it is fair to say that so far practically nothing has been done in Michigan in elementary trade instruction. By the census figures just published Michigan takes rank among the states as eighth in population. Of these eight states Texas and Michigan are the only ones having no trade-schools. Yet the growth of population in Michigan, as in most of the states, is largely in industrial centers. Leaving these out of consideration the increase of population in the state in the last decade would be barely 3 per cent. Certainly there is as yet no industrial training commensurable either with the school enrollment or the industrial needs of the state. The chance for immediate progress seems to lie in the co-operation of the state legislative and educational authorities with the communities now ready to attack the problem.

PROGRESS IN OTHER STATES

Let us consider somewhat carefully what has already been accomplished in other states. The movement along its present lines is distinctly one of the last ten years. In Bulletin No. 12, just issued by the National Society for the Promotion of Industrial Education, Dr. E. C. Elliott reports:

"Of the 29 states legislating with respect to practical activities of any type, 25 have enacted their present provisions since 1900. Of the 11 states providing for industrial and trade training, all have enacted their present provisions since 1902. The first commission for the study of industrial and technical education, in whose wake more than a half-dozen others have followed, was not appointed until 1905. No other educational movement, calling for large expenditures and involving sweeping changes in curriculum and method, has received such prompt legislative recognition as has the demand for practical and trade training."*

This rapid progress does not of itself prove the validity of the argument for industrial and secondary technical training, but that argu-

ment need not be presented here.† We shall take for granted these contentions: first, that such training is profitable alike to the individual and the state; second, that it is a fundamental part of the broader social education which is gradually enlarging our individualistic conceptions of public school work; and, third, that it is entirely within the province of our present public systems. So the narrower question at present before us is how best to organize an effective state approval and support.

The evident need which has stimulated the recent advance noted by Dr. Elliott is stated tersely in a recent report:

"In New York City approximately 37 per cent of the population are engaged in mechanical and industrial work; 37 per cent in business; 19 per cent in domestic service, and 5 per cent in the learned professions, and undoubtedly other large cities of our country would show similar distribution. There are many schools for the 5 per cent in the learned professions and there should not be fewer; but aside from engineering schools of college grade, there are but few containing thorough practical courses for the 37 per cent engaged in mechanical or industrial work."

(Report of N. E. A. Committee, 1910, p. 100.)

The first state seriously to undertake action was Massachusetts, and the report of the Douglas Commission of 1905 is still one of the most valuable documents on industrial education. The plans undertaken by the second commission organized under the Legislative Act of 1906 (Chapter 505) have been considerably modified, and the commission itself has since been merged in the State Board of Education. But the chief features of the system first started remain. Schools organized under general state supervision and a control partly state and partly local, but independent of the regular local boards of education, receive state aid to the extent of half the expense of maintenance, though the whole cost must first be raised by local taxation in addition to the taxes assessed for or through the usual system of public schools.

"All cities and towns may provide independent industrial schools for instruction in the principles of agriculture and the domestic and mechanic arts, but attendance upon such schools of children under fourteen years of age shall not take the place of attendance upon public schools as required by law. In addition these industrial schools, cities and towns may provide for evening courses for persons already employed in trades, and they may also provide, in the industrial schools and evening schools herein authorized, for the instruction in part-time classes of children between the ages of fourteen and eighteen years who may be employed during the remainder of the day, to the end that instruction in the principles and the practice of the arts may go on altogether." (Mass. Law as quoted in Bulletin No. 12.)

Under this plan notable beginnings have been made in establishing trade schools. The report of the State Board of Education, issued in January, 1910, shows a list of seventeen schools in sixteen Massa-

*The bulletins of this society will hereafter be referred to as Bulletin Number I, II, etc.

†For a skeptic, or for one wishing to review the main argument, we would suggest the following books and reports as informing and suggestive: Report of Massachusetts Commission, 1906; Beginnings of Industrial Education, Paul Hanus; Education for Efficiency, Eugene Davenport; Report of the Committee on the Place of Industries in Public Education. N. E. A., 1910; The Worker and the State, Arthur D. Dean; Vocational Education, David Snedden.

chusetts cities and towns organized in this way. We should add that there were previously the state textile schools, established by legislative act in the nineties at the cities of Fall River, Lowell and New Bedford. It should also be noted that several communities in which general school sentiment is most progressive have preferred to organize similar work under their local boards of education. At Newton and Springfield the technical high schools, while not distinctly trade schools, are emphasizing the fundamental work of carpentry and the mechanical trades for boys and of the domestic arts for girls. Springfield has had for several years an effective evening public school of trades, and in 1909 established an elementary industrial class, which now includes about eighty boys. The school authorities of Chicopee go further and maintain that vocational courses should be an integral part of the ordinary high school. They have shop courses in cabinetmaking and machine work, which are taken by all the boys of the first two high school grades. Fitchburg has developed an effective trade course on a special part-time plan, which we shall discuss later.

Connecticut, under laws passed in 1909, has established two state trade schools, at Bridgeport and New Britain. They are under state control and paid for by state funds though at both places local aid is promised. The cost to the state is not to exceed $50,000 a year. The "independency" shown in these two states has come partly from local conditions and partly from a feeling that this movement in purpose and content was too foreign to the training and point of view of the "school-men" conducting public education to be fairly administered by them. On the other hand, some of the school-men have combated the movement, believing it a manufacturers' scheme to secure recruits for factory exploitation. Perhaps it is unwise for any progressive movement to sift too closely its adherents; some are always seeking selfish advantage. But we believe this problem is bigger than any question of manufacturer's profits or of factory labor as a commodity. It is as vital to the state as any other department of public education. Indeed, the problem will not be fully met until the occupations as a part of education are recognized in the content of lower grade instruction. We firmly believe that more can be done through union with the present organization of public education than by separation.* At least Michigan conditions are favorable to a unified organization. Therefore, we shall find more of value in the plans undertaken in New York, Wisconsin, and Ohio, the remaining states which have completed effective state legislation on this subject.

Michigan finds a New York ancestry for many of its people, customs and political units; we may secure valuable hints from the system of industrial training authorized in that state in the laws of 1908 and 1910. It is a method of partial state support and control, or, looking at it from the local point of view, a method of state aid. Local authorities are given the power to establish, conduct and maintain trade and industrial schools. The course of study must be approved by the Commissioner of Education. The schools are of three types:

a—Those giving general industrial training.

b—Those giving trade training.

c—Those giving training in agriculture, mechanical arts and homemaking.

The schools are supported by local taxation and are under the direction of the general board of education, which has the appointment also of an advisory committee representing the industries taught. The state repays the school district $500 annually for the first teacher and $200 annually for each additional teacher. It will be seen that this method prevents any attempt to exploit the state treasury by starting schools where they are not needed, as the local expense would be too great. In the day schools provision at present is made only for children who have not yet left the public schools. For the elementary industrial schools pupils must be fourteen years of age or grammar school graduates. For entrance into the trade schools pupils must be sixteen years of age. The State of New York has a carefully organized state department of education, and the supervisory work of that department means more than in some of the other states. It is interesting to note that both in Massachusetts and New York one assistant commissioner (under that or some other title) has direct charge of the supervision and development of these industrial schools throughout the state.

In point of legal sanction, Wisconsin and Ohio have gone further than Michigan, though agricultural schools have made as much progress here as in Wisconsin. On the trade side little seems to have been done in either state. Milwaukee has a fine trade school, with excellent equipment and an unusually strong teaching force; but its cost, considering the numbers reached, would make its plan prohibitive in any but large cities. Wisconsin also has a most valuable institution in the Stout School in Menominee; while in Ohio, Cleveland has developed a fine technical high school. But neither of these seems more typical than the schools at Muskegon and Saginaw, which have been developed through the co-operation of philanthropists with local educational authorities.

It will be seen, therefore, that so far as we may use the experience of others, the commission believes a modification of the New York plan better adapted to Michigan conditions than any of the other systems yet devised.

ORGANIZATION NEEDED

Any successful plan must be founded upon sound theory. When we come to consider the general question two points of view, in the way of school demands, are at once evident.

I.* Through the separate occupations there is the demand of society for efficient workers. Steadily the work of the world is being classified and the classes subdivided until the puzzle seems frequently to be how to secure proper efficiency without making too rigid a stratification of social groups. If we may suggest a personal view—we believe that the solution of this problem must be found in dignifying efficiency, whether manual or mental, and that here arises one of the greatest responsibilities of the public schools. The work of the world must be done; to be done it must be classified and apportioned, and to be done satisfactorily we must secure for each kind of work trained and willing workers. Training for work means education, at least it means a part of education which few at present are getting; and willing workers in certain callings will not, in large numbers, appear until

*In fact the division of local control prior to the age of specialization seems to us to come from a false theory of education.

through education we shall have established a sentiment that efficient labor dignifies itself. It is not the province of the public school to direct into one or a few of the channels of human action all of its best product. The schools have not meant to do this, but their inherited traditions, their organization and present courses make this hard to avoid. The complete solution will come only, to quote a recent writer, when "It will be possible for anyone to receive instruction in any subject at any time. Nothing less can be acceptable in an American democracy."

Our skilled trades are essential to our civilization and progress. If they are to hold their proper place and improve their own conditions, they have a right to their share of well-trained recruits. Upon some schools, then, public or private, there lies the just claim that workers in the trades shall have equipment similar in the points of maturity, training and intelligence to the equipment of those whom we attempt to fit for the so-called intellectual pursuits. We cannot escape the conviction that in all of our states, and certainly in Michigan, where public education has from the first been carefully planned and provided, the responsibility lies largest on the public schools.

The age at which special training should begin is the first important point. If the skilled manual occupations are to get their share of intelligence, no plan of industrial training which brings the individual choice below sixteen or shoves into these occupations pupils of irregular or slip-shod mental habits will be fully satisfactory. For secondary trade schools sixteen years should be the lowest limit of age at which applicants will be admitted. A lower limit would meet at the outset ~~two practical difficulties;~~ one, the antagonism of employers, for they recognize the need of maturity in their recruits, and are fast coming to appreciate the economic cost of immature laborers. On the other hand, artisans themselves would be opposed, since their constant sentiment is to prevent exploitation of their children. If the remainder of the demand is to be met, viz., training and intelligence equivalent to that secured by candidates for the professions and for business life, we must have intensive trade courses whose content and method must be largely under the direction of the trades involved. Instruction should be given by practical mechanics with attendant shop practice, co-operative or otherwise. In our judgment such schools should be established under state plans and by state aid and connected through their official boards with the public schools on one side and the trades on the other. The New York plan gives suggestions as to this possibility.

II. But the second point of view is just as imperative when we look at the present conditions of elementary education.

At present there lies upon us the necessity better to adapt to productive citizenship those children who, either through carelessness or lack of means, drop out of school at fourteen, or even earlier. Once started among the unclassified, they find it almost impossible to secure, even as adults, a foothold in the skilled and gainful occupations. Of course, someone must do this drudgery; still the whole tendency of civilization is to reduce the ratio of unclassified to skilled labor. "Some parts of the domain of unreflective labor will long be left untouched, but the process is going forward. It is clear that, while education is rendering the toilers dissatisfied with the humblest sorts of occupations,

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science is steadily sweeping away these occupations." (The Worker and the State, p. 163.)

If we are to maintain public education in its widest sense, we must plan to prepare for effective service those who now are wholly unprepared. Thus we shall find in Michigan at present, as elsewhere, the need of a kind of industrial schools, possibly temporary, but just now most practical. We may name them elementary industrial schools, or vocational schools, as distinguished from the secondary trade schools just mentioned. Their main intent would be to save for reasonable efficiency pupils who otherwise would drop out of school to become units of inefficiency. These schools should take pupils at fourteen or older and give them the rudiments of one or more of the fundamental occupations and some knowledge of the wider problems of the industries. They should not be asked to impart much technical skill, nor should they be considered as trade feeders.

In our opinion there are many localities in Michigan in which both kinds of schools just mentioned could be quickly and effectively organized. In some the first kind could best be started, in most of the second. For the second, well established with two or three courses, would straight-way be found furnishing material for the more extensive work of the trade school. A suggestion of the material at hand to be benefited by such schools is found in the following record of school permits issued in Kalamazoo during the school year of 1909-1910 and the first two months of 1910-1911. During the first period 162 applications were filed, falling into three classes:

First. Issued because applicant had completed Grade VIII in school.
Second. Denied.
Third. Issued for cause.
The latter class is shown in the tables.

KALAMAZOO PUBLIC SCHOOLS

Permits given September 1, 1909-June 1, 1910.

	Boys.	Girls.	Total.	Poor Health.	Necessity.	Lack of School Interest or Progress.
Age 14...	12	15	27	3	24	.....
Age 15....	48	36	84	1	73	10
Totals.	60	51	111	4	97	10—111

Permits given September 1, 1910-November 8, 1910.

	Boys.	Girls.	Total.	Poor Health.	Necessity.	Lack of School Interest or Progress.
Age 14....	5	3	8	1	7	.....
Age 15....	19	14	33	.....	31	2
Totals	24	17	41	1	38	2—41

We have, then in an industrial city of favorable school conditions 111 pupils stopping school in one school year, of whom the large majority might have been induced to stay had a part time school given them a chance for self-support, or a vocational school made clear to them the economy of perseverance. Necessity is in these cases a flexible plea, and the prolific "mother of invention;" yet, after all reasonable discounting, that and lack of progress bar the road of school advancement, indeed of life-opportunity, for too large a percentage of the children of the state. Later charity and philanthropy cannot overcome the loss thus imposed on society. Moreover, in this state these schools can easily be adjusted to our present public school system. This committee has received returns from forty-seven cities and towns in the state in which manual training is already underway; about a dozen have well-developed high school courses and two or three have special ungraded schools, as, for instance, Detroit, Grand Rapids and Kalamazoo, in which manual work is already emphasized, though not organized on the trade basis.

Successful experiments in this field have been started in several cities. Cincinnati, Ohio, and Fitchburg, Mass., have developed part-time systems easily adapted to large or small localities, in which certain industries are concentrated. Rochester, N. Y., and Saginaw, Mich., illustrate practical ways of developing trade schools. At Cincinnati a public school instructor is in charge of various groups, some two hundred boys in all, who are employed as apprentices by different manufacturers; their apprenticeship is guarded to prevent exploitation, and to secure practice in different kinds of shop work. These boys work in the shop five and one-half days and go to school one-half day at the same rate of pay. The instructor is peculiarly fitted for the work, and those who have inspected the schools declare that the results secured are remarkable.

Fitchburg, Mass., a "machinery town," has a plan of half-time work that has two distinct advantages; it gives a boy the chance for a good amount of instruction in the theory, methods and drawing needed for a special trade, and secures for him practical shop work, under shop conditions, with up-to-date machinery. The school also avoids the necessity for a costly mechanical equipment that would rapidly depreciate. The boys are directed in their shop work to some extent by the instructor and are assigned in practice to the different shops in co-operation. Boy A spends this week in the shop, while boy B is in the school; on Saturday morning boy B goes to the shop to find what work A is doing and where to take hold on Monday morning. The second week boy A is in school and boy B in the shop, and this alternation continues through the school year of forty weeks, so that each boy secures twenty weeks of instruction and twenty weeks of practice. The boys who persevere through the year have a chance to work during the summer. The two shop years are preceded by one entire year of academic work. The boys are paid a certain definite wage per hour for work in the shop years and have an outlet into the shop at the end of their course.

The Rochester Factory School, Rochester, N. Y., was established in 1908. Its aim is to keep boys in school longer than they would otherwise stay and give them instruction preparatory to industrial life. The school is under the Board of Education of the city of Rochester and

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the State Education Department, and is supported by municipal funds and state appropriations under the law of 1908. For purposes of instruction an old school building is utilized, the equipment of which is valued as follows:

Cabinet Making Department	$2,200 00
Electrical Department	700 00
Carpentry Department	200 00
Plumbing Department	300 00

The budget for 1909-10 was $13,375.

The completion of the sixth grade and an age qualification of fourteen years are required for admission. The age requirement is waived in case of younger children of advanced standing.

The class work includes mathematics, drawing, English and industrial history from the trade point of view and takes one-half of a six-hour day; the other half is given to shopwork. One hundred and four pupils were enrolled in 1909-10. While the total cost for the year was $16,000, furniture made and repair work done for the Board of Education was credited back, at fair rates, to the amount of $10,000. Hence the net cost was in round numbers $6,000. Factory procedure is followed so far as possible; for instance, if bookcases are needed, at least six of one pattern are made at one time.

The establishment of the Saginaw Trade School is described by Supt. E. C. Warriner in a circular sent out last year:

SAGINAW TRADE SCHOOL

Establishment. October 30, 1909, the Hon. W. R. Burt addressed a letter to the superintendent of schools, saying that he would furnish the sum of $2,000 to pay the expense of a trade school for the present school year. This letter was turned over to the Board of Education and a special committee of the board was called for November 3. At this meeting a petition was presented to the Board of Education, signed by fifty-six machinists of the city, protesting against the establishment of a trade school on the ground that it would put "on the market a lot of inexperienced men and be a deteriment to the trade." The matter was thereupon referred to a special committee of the Board of Education. This committee met representatives of the machinists of the city November 5, and a long discussion ensued on the subject of trade schools. Meanwhile the feeling grew that the matter ought to be put before the people of the city, and, accordingly, at a special meeting of the Board of Education, held November 10, it was decided to call a public mass meeting at the Auditorium Sunday afternoon, November 14. This meeting was addressed by different persons, and, after a general discussion, it was voted to recommend to the Board of Education the acceptance of Mr. Burt's gift, and the establishment of the trade school. At the regular meeting of the Board of Education held November 17, 1909, this action was accordingly taken. The trade school was opened January 5, 1910, using the lunch room in the high school building as a session room for the school.

Admission. Announcement was made through the schools and in the daily papers that the trade school was to be opened and any boy

over fourteen years old who desired to learn a trade was invited to send in his application. In all eighty-nine names were received. The superintendent visited the schools and talked with the boys in regard to their wishes. It was found that some of the boys had no definite idea as to any trade to be learned, while others were fully decided. As by far the largest number wished to learn the machinist's trade, this was selected as the trade to be taught. Next the parents of the applicants were asked to call at the superintendent's office and express their desires in the matter. There was now a falling off in the number of applicants, but forty-five appeared with their parents. As it had been planned to begin with one class, it became necessary to refuse admission to some of the applicants. The final decision was to take only those boys who were over fifteen years of age. Of those there were twenty-eight, so that the school opened with this number belonging.

Aim. The aim of the school as at present organized is to teach the machinist's trade.

Course of Study. The course of study laid out is three years in length.

III. Completely to meet present needs there should be legal sanction and state assistance for a third type of school. The so-called Continuation School, which is already adopted in the state plans of Massachusetts and Connecticut, is practically in operation under the title of Evening School in certain centers in the various states already mentioned. Twenty-seven are separately listed under Evening Schools in Bulletin No. 11. While at present the work is almost entirely the providing of evening classes, into which ambitious workers enter, the tendency is toward finding some method like the Cincinnati plan, above described, for securing the co-operation of manufacturers in sending to these schools present workers who are only half trained. The pupils fall into two groups—first, adults who have already gained their trade with slight training; second, those who can secure only an elementary industrial training before it is necessary for them to become wage earners. For the first class of workers, the courses given for many years by Mechanics' Institute, at Rochester, N. Y., present a valuable type. For the second class, the Rochester Factory School, already mentioned, furnishes excellent suggestions.

STATE CO-OPERATION NEEDED

There are two great reasons why the state should assist in developing plans for public industrial education—within its boundaries, not simply by permissive legislation, but also through financial aid to given localities. The first is a simple plea of justice. We have tried to show the reasons for the demands of industrial education. The state assumes regulative control of other departments of public education, and to them it gives through the various college and school funds financial assistance. If it assumes regulative control as well in this department (and from this there would seem to be no escape), it should take also a part of the financial responsibility for the new line of public education.

The second great reason is that the problem is too big for the separate

localities:- (a) Because of the great diversification of industries and the migratory tendency of labor under our present shop and transportation systems no locality can possibly undertake all that would be desirable, and, furthermore, each place would find itself training workers for other places, quite as much as for itself. This is reciprocal and within certain limits worth while; but as we search the facts we shall find that the state in practically every instance is the gainer. Probably the state is the smallest of our political units that can undertake the plan of organization, though the local units must be left quite free to determine their special lines of co-operation.

(b) We must face large expense. A state wide plan with state supervision and aid would naturally involve concentration for certain trades in a few places most favorable and thus bring a diversification of training throughout the state with a concentration of effort in special localities. For local initiative would evidently mean much duplication of effort and scattering of energy.

(c) On the theoretical side, the state is most interested in its own citizenship. Herein lies the basis of our present educational system, and to the state we should look for the sanction under which we may organize this new form of education and for the aid through which different localities may undertake it.

(d) If we look for examples, we see that the problem has already been undertaken by other states whose industrial development may be a little in advance of Michigan conditions, but whose industrial prospects are no greater than our own. If the next ten years show in Massachusetts, New York, Ohio and Wisconsin as great a progress in this department as has the last decade, the changed conditions will mean to them a great advantage in competition. Michigan laborers must meet this competition; her manufacturers must meet the conditions of labor that this training will produce. The state, rather than the special locality, has thus the greatest interest in this movement.

CONCLUSIONS AND RECOMMENDATIONS

We have discussed the reasons for the recommendations already given in the report of the commission. For convenience we repeat these recommendations so far as they refer to industrial training:

First—that to cities of 5,000 or more in population that shall establish (a) an elementary industrial school, or (b) a trade school for boys over sixteen years of age, or (c) a trade school for girls over sixteen years of age, there shall be allowed by appropriation from the state treasury the sum of $500 for one instructor employed and the sum of $250 for each other instructor employed up to a limit of four instructors in all.

Second—That cities having a population of 20,000 or more shall be authorized to establish evening or continuation schools of trades, and that to such schools there shall be allowed from state funds a grant of $500 toward the salary of the first instructor and $250 for other instructors, provided the total grant to any city under this recommendation shall not exceed $1,000.

Third—This state aid shall be in the form of reimbursement for money raised by taxation in the given locality and spent for the purpose in-

dicated, and shall be paid only upon the presentation of properly accredited vouchers.

Fourth--The amount thus appropriated by the state for the industrial and agricultural training shall not exceed for the first year a total of $30,000, for the second year a total of $40,000, or for any subsequent year a total of $100,000. Schools shall be accredited or rejected by the State Board of Education, according to statutory provisions.

Fifth—The supervision of courses, accrediting of schools, and proper certification of teachers for industrial or agricultural schools should be placed in charge of the State Department of Education.

Seventh—That the appointment of a second Deputy Superintendent of Public Instruction be authorized, who shall have general charge of this branch of education.

RECAPITULATION

We have considered industrial education as connected with the needs of Michigan rather than abstractly. For themselves elementary and secondary industrial training may be urged on the following grounds:

I. 1. "Industry, as a controlling factor in social progress, has for education a fundamental and permanent significance.

2. Educational standards, applicable in an age of handicraft, presumably need radical change in the present day of complex and highly specialized industrial development.

3. The social aim of education and the psychological needs of childhood alike require that industrial (manual-constructive) activities form an important part of school occupations.

(a) In intermediate schools industrial occupations are an important element in the wide range of experience necessary for the proper testing of children's aptitudes as a basis for subsequent choice of specific pursuits, either in vocations or in higher schools.

(b) In secondary schools industrial occupations properly furnish the central and dominant factor in the education of those pupils who make final choice of an industrial vocation. Vocational purpose is the distinguishing mark of the 'technical' high school as distinct from the 'manual training' high school."

—Report of N. E. A. Committee, p. 6.

II. Put more concretely, that is need to secure, by means of specialized education, a more rational choice of vocation by individuals and better individual training, for two reasons:

1. The demand of society, through the industries, for more efficient workers.

2. The demand that society, for its own sake, recognize the need for differentiation in training in order to prevent social waste.

III. There are several ways of meeting the problem:

1. By a readjustment of elementary education which shall more fully recognize industry as a social factor; but this is a matter of internal growth rather than external adjustment through legislation.

2. By means of special departments in our school system, of which the following are immediately valuable and deserve state sanction and state aid:

(a) Elementary industrial or vocational schools for pupils from fourteen to seventeen years of age.

(b) Secondary industrial or trade schools taking boys and girls at sixteen years of age and training them first, in general intelligence; second, for skill in a specific trade.

(c) Continuation schools for workers who wish to secure further training.

IV. Michigan should authorize and aid these forms of industrial training:

1. From the broad ground of interest in securing the best citizenship.
2. Because of its unique position and great possibilities industrially.

Suggestive material in regard to special schools and courses of study will be found in the Appendix.

APPENDIX A—*Statistical*

TABLE I. A. TYPICAL LABOR CONDITIONS FOR AGES 14-16

Investigation made in Summer of 1910

City.	Firm canvassed.	Number working.		Personal canvass of				Would have continued in school had they been taught a trade.		Fitted for mechan'l drawing.	Wood working.	Sewing.	Cooking.	Both sewing and cooking.	Miscellaneous trades.		Not fitted.		Average weekly wages.	
				Native.		Foreign born.														
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Boys.	Girls.	Girls.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Detroit	18	74	418	5	75	1	8	0	29	6	.....	11	2	18	.....	1	6	51	$7 81	$6 23
Kalamazoo	7	60	43	49	27	11	16	48	33	21	17	7	.....	27	3	2	14	7	5 60	6 15
Saginaw	4	32	192	22	26	0	3	7	.....	10	.....	†17	.....	.....	.....	.....	12	12	5 43	5 14

†General work.

TABLE I. B. WAGES PER WEEK EARNED BY THE ABOVE BOYS AND GIRLS

Amount per week.	Number of boys.	Number of girls.
$4 00		18
4 50	6	150
5 00	17	123
5 00–5 50	50	4
6 00	13	189
6 60	.. .	8
7 00	..	50
7 50	6	10
8 00–8 50	42	7

TABLE II. AGRICULTURAL HIGH SCHOOLS, MICHIGAN, 1909-1910

	Hillsdale, Mich.	Hudson, Mich.	Lawton, Mich.	Otsego, Mich.	St. Louis, Mich.	N. Adams, Mich.
Total population of the district	6,000	3,000	1,000	3,500	2,500	650
Total valuation of the district	$350,000	$2,000,000	$340,000	$4,000,000	$2,000,000	$230,000
School census of the district	1,257	540	333	691	552	119
Total number enrolled in public school	1,124	505	240	650	550	153
Total number enrolled in high school	280	160	67	113	103	79
Number of non-resident students	80	67	26	48	32	51
Of non-residents, number boys	45	42	15	25		26
Of non-residents, number girls	35	25	11	23		25
Rate of tuition in high school	$20	$15 20	$12	$19		$15
Number of boys in each grade	IX X XI XII	IX X XI XII	IX X XI XII	IX X XI XII	IX X XI XII	IX X XI XII
	50 35 28 20	30 27 15 9	11 7 5 6	13 6 9 9	20 5 5 4	14 11 6 11
Number of boys taking agriculture in these grades	IX X XI XII	IX X	IX X XI XII	IX X XI XII	IX X XI XII	IX X XI XII
	16 13 6 5	22 15	6 6 4 4 & 4 girls.	6 4 2 6	20 4 0 1	5 6 3 7
Agricultural topics presented	Ag. botany, farm crops, horticulture	Agricu'l Botany, crops, live stock.	Ag. botany, crops, farm m'g't, live stock.	Ag. botany, crops. Horticult're, live stock, dairying, soils, manageme't.	Ag. botany, soils, crops, horticult'e	Ag. botany, soils, crops, farm management, dairying, live stock.
Total extra cost of instruction in agriculture	$120	$100	$300	none this year.	$200	$400
Extra cost of apparatus	$25	$10	$10	$30	0	0
Extra cost of library	$25	$15	$15	$20	0	$10
Amount of land used in experimental work	1 city lot	None	Small plot.	3½ acres.		
Items of experiment	Garden plat planted and maintained		Seed testing, gardening.	Gardening, transplanting, forcing, pruning, sprayi'g.		
Number of farms observed during year	3	4	3	5	2	25
Items observed	Gardens, orcha's, small fruit.	Corn crop, buildings, stock.	Stock, grape culture.	Growing crops, care and handling live stock.	Soils, crops, live stock.	Stock, buildings, orchards, soils, methods, of handling manures.
Attitude of school to agricultural subjects	Very favorable.	Very favorable.	Favorable.	Good.	Good interest aroused.	Good.
Effect on school of introduction of agricultural work	Tendency to give recognition to Ag. and to dignify the business.	Has created new interest in school work among the farmer boys.	Too early to tell.	Growing appreciation.	Probably increased the attendance.	Increase of interest in both parents & pupils.
Does it result in encouraging boys to remain on the farm	Think it will.	Yes.	Yes, it looks so.	In some cases.	Too early to tell.	Yes.
Number farmers enrolled in Agriculture Education lecture course	125	75	60	200	100	30
Number lectures given	8	7	6	12	4	5
Average attendance	60	35	22	15	40	25
Topics presented	Orchard, spray'g, insect pests, soils, sheep raising, dairying, stock.	Insect pests, soils, seed selec'n, feeding dairy cattle, diseases of cattle.	Soil fertility, corn, farm m'g't.	Tillage, plowing, corn improvem't, live stock imp'nt.	Corn improve'nt, soils, sheep, orchards, commercial fertilizers.	Dairying, fertilizers, fruit growing, hog cholera, care of seeds.
Effect of this work on the community	Very helpful.	Created great interest.	Stimulated interest.	Good, awakens a live interest.	Interested the farmers in the high school.	Better attitude toward the farm.

TABLE IV. RURAL DISTRICTS, MICHIGAN.

	Branch county.	Ionia County.	Muskegon County.	Saginaw County.
School census of boys 14 to 19 outside of cities and villages	800	825	765	1,956
Enrollment of boys 14 to 19 in rural schools	450	378	282	489
Number of boys 14 to 19 employed on the farm	200	About 105	About 350	950
Number boys who left farm permanently for other occupations 1907-1908	14, 15, 16, 17, 18, 19, yrs. 4 8 10 15 20 20	15, 16, 17, 18, 19 yrs. 10 20 50 100 100 about.		
Number boys who left farm permanently for other occupations 1909-1910	15, 16, 17, 18, 19 yrs. 5 8 10 15 20	15, 16, 17, 18, 19 yrs. 3 15 40 75 80 about.		14, 15, 16, 17, 18, 19 yrs. 49 63 80 75 80 71
Number of boys 14 to 19 attending high schools	277	About 175	34 from rural schools	46
Number of boys 14 to 19 preparing for college	100?	About 50		15
Name of one typical township in the county	Guard	Berlin	White River	Tittabawassee
School census of township	298	297		353
Number of boys in school census 14 to 19	48	33	46	50
Number of boys 14 to 19 attending rural schools	31	10	12	10
Number of boys 14 to 19 attending high school	7	4	4	5
Number of boys 14 to 19 regularly employed on farm	12	2	25	30
Number of boys 14 to 19 who intend to remain on the farm and who have had no special instruction	10 or 15	About 15	25	28
Average monthly wages of boys 14 to 19 at farm labor	$20	$20	$17	$20

TABLE V. COUNTY AGRICULTURAL SCHOOLS—*Statistics.*

County Agricultural Schools.	Menominee County. Menominee, Mich.	Dunn County, Menomonie, Wis.	Winnebago County, Winneconne, Wis.	Marathon County, Wausau, Wis.
Amount of land	105 acres	160 acres	11 acres	7 acres
Amount invested in land		$12,000	$2,000	
Amount appropriated for buildings		$35,000	$36,000	$17,500
Amount appropriated for equipment	About $1,500	$10,000		
Value of buildings	$37,000	$50,000	$38,000	
Value of apparatus and equipment	About $7,000	$10,000		$2,500 (Estimate)
Number of volumes in library	208	1,000	800	1,000
Estimated value of products from land	$900		$200	$50
Estimated value of live stock	$900	12 milk cows		
Amount of current expenses for ensuing year	$8,200	$12,000	$6,700	7,000
Amount of current expenses for year	$7,300			
Number of employees other than instructors	2	3	1 regular	1
Amount paid such employees	$775		$600	$600
Number of boys enrolled	18	50	42	17
Number of girls enrolled	38	43	36	32
Total number enrolled in the first year	35	60	60	36
Total number enrolled in the second year	21	33	18	13
Average expense to each student per year	$143 13	$150	$135	$125
Amount expended during the year for permanent improvements	$15,000	$2,000	$1,800	$100
Liabilities	$20,000			
Number of graduates for current year	12	32	18, 5s. c. 13 reg.	
Date of establishment	July 1, 1907	1903	1907	1902

TABLE VI. COUNTY AGRICULTURAL SCHOOLS—*Instructors.*

County.	Name of teacher.	Where educated.	Subjects taught.
MENOMINEE COUNTY. MENOMINEE, MICH.	J. F. Wojta	University of Wisconsin	Agriculture.
	W. H. McIntosh		Manual Training.
	Gladys Jayne	Thomas School	Domestic Science.
	Isabelle Kaps	Oshkosh Normal	Academic.
DUNN COUNTY. MENOMONIE, WISCONSIN.	F. R. Lane, M. S	M. A. C.; Ill. University	Agronomy Horticulture.
	R. D. West	Stout Institute	Agricultural Engineering.
	Miss N. Fitzgerald		Domestic Science.
	Miss H. Salter	Stevens Pt. Normal	Academic.
	G. Gilbert, B. S	M. A. C	Animal Husbandry.
	Elsie Varley	Guelph Agricultural College	Agricultural Elements.
	Mabel Rafferty	Business College	Secretary and Academic.
WINNEBAGO COUNTY. WINNECONNE, WISCONSIN.	G. R. Holeton	Stout Institute	Manual Training.
	Frances R. Heller	Stout Institute	Domestic Science.
	D. O. Thompson	University of Wisconsin	Agriculture.
MARATHON COUNTY WAUSAU, WISCONSIN.	G. A. Crosthwait	University of Illinois	Agriculture and Academic.
	J. A. Bonell	Stout Institute	Manual Training and Academic.
	Hatty R. Dahlberg	Stout Institute	Domestic Science and Academic.

NOTE.—This list is given to show the number of teachers needed for work of this sort and also the schools now giving teachers preparation in these lines. Salaries range from $700 to $2,500.

TABLE VII.—MICHIGAN CITIES HAVING MANUAL TRAINING COURSES.

1909-1910.

Name of city.	Total enrollment.			Grade enrollment, given date.													
				Boys.							Girls.						
	Boys.	Girls.	Total.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
Adrian	911	883	1794	109	73	67	65	78	72	38	27	105	70	67	60	78	73	38	25
Alpena	599	566	1165	55	39	8	9	....	10	2	....	46	48	6	6	....	13	4	....
Ann Arbor	....	....	2566	*225	*212	*162	*232	....	....	....	....	....	....	....	....	....	....	....	....
Battle Creek	2150	2304	4454	187	169	141	126	123	66	41	18	185	172	153	137	140	96	63	49
Bay City	3246	2543	5789	....	96	4	....	....	30	5	....	....	9	78	....	....	42	2	....
Benton Harbor	820	799	1619	86	69	65	53	42	35	11	17	83	74	59	57	66	24	27	29
Bessemer	220	250	470	59	41	52	23	18	13	13	1	55	53	33	22	42	5	24	16
Cadillac	1010	995	2005	86	67	59	37	43	23	17	10	65	85	66	46	49	45	14	13
Calumet	3239	3247	6486	357	371	299	198	....	2	77	....	350	317	242	199	....	4	28	....
Charlotte	493	501	994	50	36	35	38	41	32	18	9	45	38	41	39	43	33	31	18
Cheboygan	....	....	1541	80	72	44	27	22	12	....	....	68	61	64	34	46	30	....	....
Clemens	152	160	312	11	10	8	11	15	9	6	1	13	11	10	13	16	11	8	5
Coldwater	575	625	1190	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Crystal Falls	600	650	1250	70	60	42	38	18	17	8	6	58	62	49	40	28	19	12	8
Detroit	....	....	Dat a	not	rec eive	d.	....	....	....	....	....	....	....	....	....	....	....	....	....
Escanaba	1279	1322	2601	117	119	24	67	90	62	55	40	93	101	109	85	60	42	35	30
Flint	1844	2126	3970	237	153	101	102	87	39	36	37	251	177	148	127	96	81	72	51
Grand Rapids	....	....	....	670	582	490	347	....	....	....	....	630	613	523	417	....	....	....	....
Hillsdale	....	....	....	54	35	30	34	42	36	30	23	61	39	35	36	48	44	37	20
Holland	894	964	1858	108	112	75	53	....	4	6	....	109	92	65	64	....	9	4	....
Houghton	854	879	1733	62	49	53	63	33	29	24	20	57	48	53	58	45	27	29	18
Iron Mountain	1335	1344	2679	147	142	107	80	42	33	19	15	145	118	113	80	39	38	23	18
Ironwood	....	....	....	....	....	75	39	44	29	24	13	122	211	102	36	45	38	33	22
Ishpeming	1609	1615	3224	145	143	125	115	89	50	38	28	155	156	119	113	88	65	68	32
Jackson	2118	2191	4309	177	168	142	75	85	61	....	....	188	171	120	103	95	75	....	....
Kalamazoo	2634	2773	5407	241	234	256	161	139	74	64	47	226	227	246	217	134	104	87	62
Lansing	2136	2101	4237	Dat a	not	rec eive	d.	....	....	....	....	....	....	....	....	....	....	....	....
Ludington	845	889	1734	69	68	66	44	24	19	15	11	60	75	83	34	29	34	28	22
Manistee	309	343	652	71	72	84	60	2	2	....	....	83	85	90	53	3	2	....	....
Manistique	428	477	905	42	41	33	32	20	23	14	13	37	44	32	38	44	22	15	13
Marquette	....	....	....	93	90	80	62	39	27	26	10	100	74	81	72	65	56	41	26
Marshall	329	390	719	20	24	26	18	28	15	16	12	15	42	26	23	23	36	29	42
Mt. Clemens	758	650	1408	43	83	82	51	....	8	3	....	37	68	51	47	....	7	7	....
Muskegon	....	....	....	....	....	173	93	54	40	27	38	....	....	....	110	79	35	37	37
Negaunee	748	755	1503	44	49	48	45	29	29	3	10	66	56	47	30	31	27	22	18
Niles	507	518	1025	66	44	48	51	23	9	13	13	53	45	45	40	30	25	12	13
Owosso	909	840	1749	96	79	62	41	40	29	15	13	53	67	68	59	60	38	22	23
Port Huron	1584	1496	3080	147	131	116	82	51	48	42	31	134	124	114	92	54	61	40	34
Saginaw, E. S.	2233	2271	4504	245	229	190	160	182	88	59	37	208	244	219	172	176	102	67	53
Saginaw, W. S.	1531	1504	3035	160	152	116	118	75	27	28	5	151	147	140	122	102	39	24	24
Sault Ste. Marie	1150	1190	2340	103	92	73	68	62	37	33	26	101	94	72	73	67	32	35	28
St. Johns	366	386	752	37	19	28	23	30	20	13	10	38	24	32	28	50	26	17	13
St. Joseph	458	478	936	39	44	42	34	34	11	11	11	44	95	78	76	33	19	14	13
Three Rivers	456	489	945	44	42	35	20	28	21	9	12	61	39	31	25	33	29	17	18
Traverse City	314	312	626	101	59	63	64	....	2	7	....	98	68	65	72	....	2	5	....
Wyandotte	368	395	763	46	23	39	13	17	13	9	4	47	32	29	21	17	15	5	6

*Boys and girls.

NOTE—The enrollment given in the first three columns was asked for as "Total Enrollment;" Enrollment by Grades was asked on the given date, February 4, 1910. It is understood that all pupils enumerated in Grades V-VIII have the kind of manual work mentioned under courses of study. In most schools high school courses in manual training are optional; hence the high school figures do not show manual training enrollment.

TABLE VIII. MANUAL TRAINING IN MICHIGAN CITIES.

Cost 1909-1910.

	Original cost of apparatus.		Yearly repair renewal.		Yearly supplies.		Yearly instruction.		Per capita cost.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Adrian	$400 to 500 00	$400 to 500 00	$150 00	$100 00	$100 00	$150 00	$1,000	$1,100		
Ann Arbor									$1 87½	
Bay City	2,150 00	500 00			265 00	200 00	1,250	1,400		
Battle Creek	2,953 31		145		74 2		32 00			
Bessemer	300 00	500 00			75	150 00	350	350		
Benton Harbor	450 00	450 00					900	650		
Crystal Falls	1,500 00	1,200 00			125 00	130 00	1,000	850	14 58	$11 73
Charlotte	19 50				15 0		60 0			
Cheboygan	400 00	250 00			15 0,		900 00	550 00	10 42	5 51
Chesaning					62 05					
	8,67 3 85									
Detroit	150 00, extensions.									
Flint	500 00	475 00	25 00	15 00	75 00	125 00	950 00	650	1 98	1 05
Grand Rapids	749 00	1,370 09					23,276 60			
Houghton	52 00		30 0		60 0		18 00			1 65
Ironwood	180 00		150 00				2,150			
Iron Mountain	1,000 00	500 00	50 00	20 00	419 00	408 00	1,200	850		
Ishpeming									1 25	
Jackson	3,500 00	1,500 00			80 0		29 75		3 00	
	3,000 00	2,000 00	extensions							
Kalamazoo	1,500 00	800 00	60	0 00	1,02 9 13		7,79 1 50			
Ludington					224 81	118 45	825	525		
Manistee	3,247 00	2,100 00	10 00	4 65	452 72	369 27	1,150	1,150	1 30	1 07½
Muskegon	33,79 5 02		65	5 97	2,37 9 22		16,59 8 50		39	37
Marquette			200 00		300 00	200 00	2,100	1,400		
Marshall	300 00		2 5		10 0		65 0		1	25
Negaunee	2,500 00	1,000 00			80 25	96 77	1,000	850	0 35	
Owosso	475 00	475 00	25 00	2 00	125 00	123 00	800	550		
Port Huron	650 00	50 00	25 00		200 00	50 00	1,000	650	2 55	1 50
St. Johns	243 00	21 00	9 00		21 00	4 00	105	105	3 23	1 32
Sault Ste. Marie	1,000 00	500 00			2 38*	2 46*	1,300	700	17 98	12 06
Saginaw E. Side	36,18 9 94				1,030 00	700 00	1,675	1,375	23 77	12 23
Saginaw W. Side	2,000 00	600 00	50 00	25 00	800 00	600 00	2,525	1,675		
Traverse City	895 00	552 50			160 00	258 80	800	650	2 54	1 93
Three Rivers					24 0					
Wyandotte	500 00									

*Per capita.

NOTE—An effort was made to secure the cost of the different items, apparatus, material, instruction, etc., grade by grade; much interesting information was received, but not enough to make a useful comparative table. We have therefore tabulated totals and averages only, though dividing the cost of courses for boys and courses for girls wherever that information was given.

TABLE X. MANUAL TRAIN-

Courses by

NAMES.	BOYS.							
	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
Adrian	Card Whittling	WOOD	WORK		Wood Brass			
Albion	Wood BENCH		WORK					
Ann Arbor	Data not received							
Battle Creek	KNIFE	WORK	BENCH	WORK	WOOD	MECH. WORK	DRAWING	
Bay City			MECH.	DRAW.	MECH.	DRAW.		
Benton Harbor	WOOD		WORK					
Bessemer				Bench Work	BENCH		WORK	
Cadillac		Not	Reported					
Calumet	Bench Knife	Work	Bench and Lathe	Cabinet & Pat. Mak.	Draw.	Black-smithing	Mach.	Draw. and shop
Charlotte	Bent iron	WOOD	WORK					
Cheboygan	Reed and Book-Binding	Raffia	BENCH		WORK			
Chesaning	Data not received							
Coldwater		SLOYD						
Crystal Falls	BENCH		WORK		LATHE		LATHE	
Detroit	Cardboard Constr.	Mech. Draw.	WOOD	WORK	Joinery	Wood Turning Pat. Mak.	Forg. and Mach.	Mach. Shop
Escanaba	Not	Reported						
Flint	WHITTLING		Wood Turning	Cabinet Making				
Grand Rapids	KNIFE	WORK	BENCH	WORK	MECH.		DRAW.	
Hillsdale	Iron	BENCH		WORK				
Holland	Bent iron	BENCH		WORK		Bench Work		
Houghton	WOOD		Bench Work	Bench & Cabinet	Mech. Draw.			
Iron Mountain	WORK		woodwork	WOOD	WORK	Mech. Dra.	Lathe	
Ironwood			BENCH	WORK	Joinery Cabinet Making	Turning Pat. Mak. Foundry	Forging Mech.	Machine Shop Draw.
Ishpeming	Sloyd	Sloyd	WOOD VENETIAN	WORK IRON	Mech. Dra. CABINET WORK	Mech. Dra.	FORGING and MACH. SHOP	
Jackson	KNIFE	WORK	SHOP	WORK	MECHANICAL Mech. DRAW. CABINET	MAKING	DRAWING	

ING IN MICHIGAN.

Grades.

GIRLS

V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
SEWING		SEWING					
SEWING		COOKING		COOKING		COOKING	
SEWING		COOKING		Cook.	Sew.	SEWING	
SEWING		COOKING		COOKING			
SEWING		SEWING					
SEWING		COOKING	Sew.	COOKING		COOKING	
SEWING		SEWING					
CARDBOARD CONSTR.		SEWING		SEWING			
SEWING		COOKING					
RAFFIA WORK		COOKING		SEWING		Cook.	
SEWING							
Sew.	Sew.	COOKING		Cook. and Sew.	Sew.	Sew. Cook. and Laundry	Sew. Cook. and Laundry
SEWING		COOKING					
SEWING		COOKING					
SEWING		COOKING				COOKING	
Sew.	SEWING		SEWING		SEWING		Sew.
SEWING		Sewing	Cooking	DOMESTIC		SCIENCE	
Sew.	Cook.	Sew.	Cook.	Sew.	Cook.	Dressmak.	Adv. Cook.
SEWING		COOKING		DRESSMAKING		COOKING	
BASKETRY and WEAVING		SEWING		ADV. COOK. SEWING		DRESSMAKING COOKING SANITATION	
SEWING		COOKING		DRESSMAKING TEXTILES			

TABLE V. COUNTY AGRICULTURAL SCHOOLS—*Statistics.*

County Agricultural Schools.	Menominee County. Menominee, Mich.	Dunn County, Menomonie, Wis.	Winnebago County, Winneconne, Wis.	Marathon County, Wausau, Wis.
Amount of land	105 acres	160 acres	11 acres	7 acres
Amount invested in land		$12,000	$2,000	
Amount appropriated for buildings		$35,000	$36,000	$17,500
Amount appropriated for equipment	About $1,500	$10,000		
Value of buildings	$37,000	$50,000	$38,000	
Value of apparatus and equipment	About $7,000	$10,000		$2,500 (Estimate)
Number of volumes in library	208	1,000	800	1,000
Estimated value of products from land	$800		$200	$50
Estimated value of live stock	$900	12 milk cows		
Amount of current expenses for ensuing year	$8,200	$12,000	$6,700	7,000
Amount of current expenses for year	$7,300			
Number of employees other than instructors	2	3	1 regular	1
Amount paid such employees	$775		$600	$600
Number of boys enrolled	18	50	42	17
Number of girls enrolled	38	43	36	32
Total number enrolled in the first year	35	60	60	36
Total number enrolled in the second year	21	33	18	13
Average expense to each student per year	$143 13	$150	$135	$125
Amount expended during the year for permanent improvements	$15,000	$2,000	$1,800	$100
Liabilities	$20,000			
Number of graduates for current year	12	32	18, 5s. c. 13 reg.	
Date of establishment	July 1, 1907	1903	1907	1902

TABLE VI. COUNTY AGRICULTURAL SCHOOLS—*Instructors.*

County.	Name of teacher.	Where educated.	Subjects taught.
MENOMINEE COUNTY. MENOMINEE, MICH.	J. F. Wojta	University of Wisconsin	Agriculture.
	W. H. McIntosh		Manual Training.
	Gladys Jayne	Thomas School	Domestic Science.
	Isabelle Kaps	Oshkosh Normal	Academic.
DUNN COUNTY. MENOMONIE, WISCONSIN.	F. R. Lane, M. S	M. A. C.; Ill. University	Agronomy Horticulture.
	R. D. West	Stout Institute	Agricultural Engineering.
	Miss N. Fitzgerald		Domestic Science.
	Miss H. Salter	Stevens Pt. Normal	Academic.
	G. Gilbert, B. S	M. A. C	Animal Husbandry.
	Elsie Varley	Guelph Agricultural College	Agricultural Elements.
	Mabel Rafferty	Business College	Secretary and Academic.
WINNEBAGO COUNTY. WINNECONNE, WISCONSIN.	G. R. Holeton	Stout Institute	Manual Training.
	Frances R. Heller	Stout Institute	Domestic Science.
	D. O. Thompson	University of Wisconsin	Agriculture.
MARATHON COUNTY WAUSAU, WISCONSIN.	G. A. Crosthwait	University of Illinois	Agriculture and Academic.
	J. A. Bonell	Stout Institute	Manual Training and Academic.
	Hatty R. Dahlberg	Stout Institute	Domestic Science and Academic.

NOTE.—This list is given to show the number of teachers needed for work of this sort and also the schools now giving teachers preparation in these lines. Salaries range from $700 to $2,500.

TABLE VII.—MICHIGAN CITIES HAVING MANUAL TRAINING COURSES.

1909-1910.

Name of city.	Total enrollment.			Grade enrollment, given date.														
				Boys.								Girls.						
	Boys.	Girls.	Total.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	V.	VI	VII.	VIII.	IX.	X.	XI.	XII.
Adrian	911	883	1794	109	73	67	65	78	72	38	27	105	70	67	60	78	73	38	25
Albion	599	566	1165	55	39	8	9	....	10	2	....	46	48	6	6	....	13	4	....
Ann Arbor			2568	*228	*212	*162	*232	....	....	....	....	....	....	....	....	....	....	....	....
Battle Creek	2150	2304	4454	187	169	141	126	123	66	41	18	185	172	153	137	140	96	63	49
Bay City	3246	2543	5789	....	98	4	....	....	30	5	....	....	9	78	....	....	42	2	....
Benton Harbor	820	799	1619	86	69	65	53	42	35	11	17	83	74	59	57	66	24	27	29
Bessemer	220	250	470	59	41	52	23	18	13	13	1	55	53	33	22	42	5	24	16
Cadillac	1010	995	2005	86	67	59	37	43	23	17	10	65	85	66	46	49	45	14	13
Calumet	3239	3247	6486	357	371	289	198	....	2	77	....	350	317	242	199	....	4	28	....
Charlotte	483	501	984	50	36	35	38	41	32	18	9	45	38	41	39	43	33	31	18
Cheboygan	....	....	1541	80	72	44	27	22	12	....	....	68	61	64	34	46	30	....	....
Chesaning	152	160	312	11	10	8	11	15	9	6	1	13	11	10	13	16	11	8	5
Coldwater	575	625	1190	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Crystal Fal's	600	650	1250	70	60	42	38	18	17	8	6	58	62	49	40	28	19	12	8
Detroit			Dat a not received.																
Escanaba	1279	1322	2601	117	119	24	67	90	62	55	40	93	101	109	85	60	42	35	30
Flint	1844	2126	3970	237	153	101	102	87	39	36	37	251	177	148	127	96	81	72	51
Grand Rapids	....	....	....	670	582	490	347	....	....	....	....	630	613	523	417	....	....	....	....
Hillsdale				54	35	30	34	42	36	30	23	61	39	35	36	48	44	37	20
Holland	894	964	1858	108	112	75	53	....	4	6	....	109	92	65	64	....	9	4	....
Houghton	854	879	1733	62	49	53	63	33	29	24	20	57	48	53	58	45	27	29	18
Iron Mountain	1335	1344	2679	147	142	107	80	42	33	19	15	145	118	113	80	39	38	23	18
Ironwood				....	....	75	39	44	29	24	13	132	211	102	36	45	38	33	22
Ishpeming	1609	1615	3224	145	143	125	115	89	50	38	28	155	156	119	113	88	66	68	32
Jackson	2118	2191	4309	177	168	142	75	85	61	....	....	188	171	120	103	95	75	....	....
Kalamazoo	2634	2773	5407	241	234	256	161	139	74	64	47	226	227	246	217	134	104	87	62
Lansing	2136	2101	4237	Dat a not received.															
Ludington	845	889	1734	69	68	68	44	24	19	15	11	60	75	83	34	29	34	28	22
Manistee	309	343	652	71	72	84	60	2	2	....	....	83	85	90	53	3	2	....	....
Manistique	428	477	905	42	41	33	32	20	23	14	13	37	44	32	38	44	22	15	12
Marquette	....	....	....	93	90	80	62	39	27	26	10	100	74	81	72	65	56	41	26
Marshall	329	390	719	20	24	26	18	28	15	16	12	15	42	26	23	23	36	29	42
Mt. Clemens	758	650	1408	43	83	82	51	....	8	3	....	37	68	51	47	....	7	7	....
Muskegon	....	....	....	....	....	173	93	54	40	27	38	....	....	....	110	79	35	37	37
Negaunee	748	755	1503	44	49	48	45	29	29	3	10	66	56	47	39	31	27	22	18
Niles	507	518	1025	66	44	48	51	23	9	13	13	53	45	45	40	30	25	12	13
Owosso	909	840	1749	96	79	62	41	40	29	15	13	53	67	68	59	60	38	22	23
Port Huron	1584	1496	3080	147	131	116	82	51	48	42	31	134	124	114	92	54	61	40	34
Saginaw, E. S	2233	2271	4504	245	239	190	160	182	88	59	37	208	244	219	172	176	102	67	53
Saginaw, W. S	1531	1504	3035	160	152	116	118	75	27	28	5	151	147	140	132	102	39	24	24
Sault Ste. Marie	1150	1190	2340	103	92	73	68	62	37	33	26	101	94	72	73	67	32	35	28
St. Johns	366	386	752	37	19	28	23	30	20	13	10	38	24	32	28	50	26	17	13
St. Joseph	458	478	936	39	44	42	34	34	11	11	11	44	95	78	76	33	19	14	13
Three Rivers	456	489	945	44	42	35	20	28	21	9	12	61	39	31	25	33	29	17	18
Traverse City	314	312	626	101	59	63	64	....	2	7	....	98	68	65	72	....	2	5	....
Wyandotte	368	395	763	46	23	39	13	17	13	9	4	47	32	29	21	17	15	5	6

*Boys and girls.

NOTE—The enrollment given in the first three columns was asked for as "Total Enrollment;" Enrollment by Grades was asked on the given date, February 4, 1910. It is understood that all pupils enumerated in Grades V-VIII have the kind of manual work mentioned under courses of study. In most schools high school courses in manual training are optional; hence the high school figures do not show manual training enrollment.

TABLE VIII. MANUAL TRAINING IN MICHIGAN CITIES.

Cost 1909-1910.

	Original cost of apparatus.		Yearly repair renewal.		Yearly supplies.		Yearly instruction.		Per capita cost.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Adrian	$400 to 500 00	$400 to 500 00	$150 00	$100 00	$100 00	$150 00	$1,000	$1,100		
Ann Arbor									$1 87½	
Bay City	2,150 00	500 00			265 00	200 00	1,250	1,400		
Battle Creek	2,953 31		14 5		74 2		32 00			
Bessemer	300 00	500 00			75	150 00	350	350		
Benton Harbor	450 00	450 00					900	650		
Crystal Falls	1,500 00	1,200 00			125 00	130 00	1,000	850	14 58	$11 73
Charlotte	19 50				15 0		60 0			
Cheboygan	400 00	250 00			15 0,		900 00	550 00	10 42	5 51
Cheaning					62 05					
	8,67 3 85									
Detroit	150 00, extensions.									
Flint	500 00	475 00	25 00	15 00	75 00	125 00	950 00	650	1 98	1 05
Grand Rapids	749 00	1,370 09					23,276 60			
Houghton	52 00		30 0		60 0		18 00			1 65
Ironwood	180 00		150 00				2,150			
Iron Mountain	1,000 00	500 00	50 00	20 00	419 00	408 00	1,200	850		
Ishpeming									1 25	
Jackson	3,500 00	1,500 00			80 0		29 75		3 00	
	3,000 00	2,000 00	extensions							
Kalamazoo	1,500 00	800 00	60 0 00		1,02 9 13		7,79 1 50			
Ludington					224 81	118 45	825	525		
Manistee	3,247 00	2,100 00	10 00	4 65	452 72	369 27	1,150	1,150	1 30	1 07½
Muskegon	33,79 5 02		65 5 97		2,37 9 22		16,59 8 50		39 37	
Marquette			200 00		300 00	200 60	2,100	1,400		
Marsha	300 00		2 5		10 0		65 0		1 25	
Negaunee	2,500 00	1,000 00			80 25	96 77	1,000	850	0 35	
Owosso	475 00	475 00	25 00	2 00	125 00	123 00	800	550		
Port Huron	650 00	50 00	25 00		200 00	50 00	1,000	650	2 55	1 50
St. Johns	243 00	21 00	9 00		21 00	4 00	105	105	3 23	1 32
Sault Ste. Marie	1,000 00	500 00			2 38*	2 46*	1,300	700	17 96	12 06
Saginaw E. Side	36,18 9 94				1,030 00	700 00	1,675	1,375	23 77	12 23
Saginaw W. Side	2,000 00	600 00	50 00	25 00	800 00	600 00	2,525	1,675		
Traverse City	895 00	552 50			160 00	258 80	800	650	2 54	1 93
Three Rivers					24 0					
Wyandotte	500 00									

*Per capita.

NOTE—An effort was made to secure the cost of the different items, apparatus, material, instruction, etc., grade by grade; much interesting information was received, but not enough to make a useful comparative table. We have therefore tabulated totals and averages only, though dividing the cost of courses for boys and courses for girls wherever that information was given.

TABLE X. MANUAL TRAIN-

Courses by

NAMES.	BOYS.							
	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
Adrian	Card Whittling	WOOD	WORK		Wood Brass			
Albion	Wood BENCH		WORK					
Ann Arbor	Data not received							
Battle Creek	KNIFE WORK		BENCH	WORK	WOOD	MECH. WORK	DRAWING	
Bay City			MECH.	DRAW.	MECH.	DRAW.		
Benton Harbor	WOOD		WORK					
Bessemer				Bench Work	BENCH		WORK	
Cadillac		Not	Reported					
Calumet	Bench Knife	Work	Bench and Lathe	Cabinet & Pat. Mak.	Draw.	Black-smithing	Mach.	Draw. and shop
Charlotte	Bent iron	WOOD	WORK					
Cheboygan	Reed and Book-Binding	Raffia	BENCH		WORK			
Chesaning	Data not received							
Coldwater		SLOYD						
Crystal Falls	BENCH		WORK		LATHE		LATHE	
Detroit	Cardboard Constr.	Mech. Draw.	WOOD	WORK	Joinery	Wood Turning Pat. Mak.	Forg. and Mach.	Mach. Shop
Escanaba	Not Reported							
Flint	WHITTLING		Wood Turning	Cabinet Making				
Grand Rapids	KNIFE WORK		BENCH	WORK	MECH.		DRAW.	
Hillsdale	Iron	BENCH		WORK				
Holland	Bent iron	BENCH		WORK		Bench Work		
Houghton	WOOD WORK		Bench Work	Bench & Cabinet	Mech. Draw.			
Iron Mountain			woodwork	WOOD	WORK	Mech. Dra.	Lathe Forging	Machine Shop
Ironwood			BENCH	WORK	Joinery Cabinet Making	Turning Pat. Mak. Foundry	Mech.	Draw.
Ishpeming	Sloyd	Sloyd	WOOD VENETIAN	WORK IRON	Mech. Dra. CABINET WORK	Mech. Dra.	FORGING and MACH. SHOP	
Jackson	KNIFE WORK		SHOP	WORK	Mech. CABINET	MECHANICAL DRAWING MAKING	DRAWING	

ING IN MICHIGAN.

Grades.

GIRLS

V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
SEWING		SEWING					
SEWING		COOKING		COOKING		COOKING	
SEWING		COOKING		Cook.	Sew.	SEWING	
SEWING		COOKING		COOKING			
SEWING		SEWING					
SEWING		COOKING		COOKING		COOKING	
			Sew.				
SEWING		SEWING					
CARD BOARD CONSTR.		SEWING		SEWING			
SEWING		COOKING					
RAFFIA WORK		COOKING		SEWING		Cook.	
SEWING							
Sew.	Sew.	COOKING		Cook. and Sew.	Sew.	Sew. Cook. and Laundry	Sew. Cook. and Laundry
SEWING		COOKING					
SEWING		COOKING					
SEWING		COOKING				COOKING	
Sew.	SEWING		SEWING		SEWING		Sew.
SEWING		Sewing	Cooking	DOMESTIC		SCIENCE	
Sew.	Cook.	Sew.	Cook.	Sew.	Cook.	Dressmak.	Adv. Cook.
SEWING		COOKING		DRESSMAKING		COOKING	
BASKETRY and WEAVING		SEWING		ADV. COOK. SEWING		DRESSMAKING COOKING SANITATION	
SEWING		COOKING		DRESSMAKING TEXTILES			

TABLE X. MANUAL TRAIN-

Courses by

NAMES.	BOYS							
	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
Kalamazoo	MECH. WHITT	DRAW. LING	ELEMEN CARP	TARY ENTRY	ART MECH.	WORK or DRAW	WOODTU PATTERN ING	RNING MAK. FORG'N
Lansing	CARD CONST	BOARD RUCTION	CARP	ENTRY				
Ludington	KNIFE	WORK	SHOP	WORK	SHOP	WORK		
Manistee	SLO	YD	BENCH	WORK	MECH. BENCH	DRAW. WORK		
Manistique								
Marquette			WOOD	WORK	Joinery Cab. Mak. Mech. Dr.	Turning Pat. Mak. Draw.	Forging Draw.	Adv. Cab. Mak. Drawing
Marshall	Bent Iron	WOOD	WORK	Wood Work	WOOD	WORK	WOOD	WORK
Mt. Clemens								
Muskegon	KNIFE	WORK	Bench Work	Bench work Wood Turning	CABINET PATTERN and FOUN JOIN CABINET MECH.	MAKING MAKING DRY ERY MAKING DRAW'NG	Forging and Iron Work	Electrical Constr.
Negaunee	Thin woodwork Constr.	WO OD		WORK				
Niles	MECH DRAW	ANICAL ING						
Owosso	Iron Work	WOO D	WORK		WOO D		WOR K	
Port Huron	Raffia Reed	BEN CH		WORK				
Saginaw, E. S.	KNIFE	WORK	BENCH	WORK	Cabinet Work Wood Tur.	Pattern Making Foundry	Wood Work Iron	Wood Work and Iron
Saginaw, W. S.	Card. Constr.	Thin Wood Constr.	Bench	Work Mech. Dra.	Bench Work			
Sault Ste. Marie	TRAY	WORK	BENCH	WORK	Bench Work LA	THE	LAT	HE
St. Johns	Bent iron	BEN CH		WORK	BENCH	WORK		
St. Joseph			BEN	CH				
Three Rivers			WOOD	WORK				
Traverse City	DRAW KNIFE	ING and WORK	CARP	ENTRY	CARP MECH.	ENTRY DRAW.	WOOD	TURN'G
Wyandotte	Iron and Carv.	Carv.	BENCH	WORK	BEN	CH	WO	RK

ING IN MICHIGAN.

Grades.

GIRLS

V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.
ELEMENTARY SEWING		COOKING		ART WORK		ADVANCED DRESSMAKING	
SEWING		COOKING					
Sew. SEWING		COOKING		COOKING	Crok. ING		
SEWING		COOKING		COOKING DRESSMAKING			
SEWING		COOKING		Sew.		Cook. and Serving ADV. COOKING	
		COOKING		COOKING			
SEWING		Sew. Knit. Crochet.	Basketry Sewing	Sew.	SEWING		Sew.
Reed Crocheting Sewing	Raffia and Sewing	Raffia Reed Sewing	ELEM. Cooking	Cook. and Dressmak.	Laundry and Dressmak.	Hygiene and Sanitation	Home Decoration Dietetics
SEWING		Sew.	COOK.	DRAWING		COOKING	
SEWING							
SEWING		DOMESTIC SEWING				SCIENCE	
Raffia Reed	Sew.						
SEWING		COOKING		Laundry Sewing Nursing	Cooking Sewing	Cooking and Serving	Cooking and Serving
Sew.	Sew.		Mech. Draw.	SEWING CHEMISTRY OF FOODS, ETC.			
		COOKING					
SEWING		Sew.	COOKING		COOKING		Cook.
SEWING		SEWING					
		SEWING					
		SEWING					
SEWING		COOKING				COOKING HOUSE	SAN.

TABLE XI. TRADE SCHOOLS

	Detroit.	Ishpeming.	Saginaw, East Side.	Stout Institute, Menomonie, Wis.	Detroit Technical Institute, Detroit.
1. Have you a trade school in connection with the public school?	No, but preliminary trade instruction is offered in one of the large grammar sch'ls	Yes.	Yes.	Yes.	Yes.
2. State character of the building		Three story, 110x66.	No separate build'g.		Brick.
3. Cost of building		$40,000	Manual training school. $240,000.	$300,000 (Cost of entire plant)	$15,000.
4. Cost of equipment		$10,000	No separate equip't.		$3,000
5. Location of buildings		Adjoins high school. 5 min. walk from 7th and 8th grades.		Near public high school, Menomonie.	Adams and Wetherell Sts.
6. Number of instructors		Three.	One.		Three.
7. Character and training of instructors		College C. B. and M. T.	Journeyman machinist, 1 year in H. S.	Experienced journeymen.	
8. Expenses for instruction		$2,150	$900 per year.	$42,000 annually.*	$2,000
9. Are students permitted to enter before completing high school course?		Yes.	Yes.	Yes.	Yes.
10. To what grade is the trade school open?		Seventh.	15 yrs. old, regardless of grade.	Fifth grade, up.	Young men 16 or more.
11. Do any students who do not regularly attend the public school attend trade school? How many?		No.	Yes Four.		Yes.
12. Between what ages are students permitted to enter?		Eleven.	From 15 up.		16 up.
13. Do you have night sessions? How many per week?	Yes, in manual training schools. Four per week.	Not at present.	Not for this class.		Yes 8.
14. Number of students attending	542	445	27	27	75
15. Average age of students completing course?		18			
16. What trades are taught?	Joinery, pattern-making, wood turning, blacksmithing, machine shop practice, mechanical drawing.	Carpentry, painting.	Machinist.	Blacksmithing and carpentry (gr. 5-8) Brick-laying and Plumbing.	Plumbing, watch-making, engraving.
17. Attitude of trade unions toward trade schools	Favorable.	No objection.	At first not friendly.		
18. General effect upon students		Good.		Good.	Good.
19. Wages received by students graduated from such school (a) first year		About $3 per day.		$2 to $3 per day in a short time.	

*Total for institute.

B. 2. INDUSTRIAL COURSES

Bulletin No. 11 (National Society for the Promotion of Industrial Training) gives abundant information regarding the courses now given in different kinds of schools. Typical elementary vocational schools for Boys are:

The Newton Independent Industrial School (see p. 14, Bulletin 11).
The Rochester Factory School (p. 21, Bulletin 11).
Schools of the same type for girls are:
The Manhattan Trade School for Girls (pp. 29 and 30, Bulletin).
Milwaukee School of Trades for Girls (p. 33, Bulletin).

An advantage in the Newton course is the testing of boys in shop work of three or four sorts in the first year; the shop work of the next two years is specialized. Typical Secondary Schools are:

Lewis Institute, Chicago (pp. 61-63, Bulletin).
Milwaukee School of Trades (pp. 22-30, Bulletin).
The Auchmuchty Schools, N. Y. (p. 42, Bulletin).
The Cleveland Technical High School (pp. 57 and 58, Bulletin).

To this reference list we add the courses of certain other schools of the several types.

SAGINAW TRADE SCHOOL

First Year

Iron work	5 recitations a week, 75 m. per recitation
Wood Work	5 recitations a week, 75 m. per recitation
Mechanical Drawing	5 recitations a week, 75 m. per recitation
Arithmetic	5 recitations a week, 60 m. per recitation
Eng. (Civics)	5 recitations a week, 45 m. per recitation

Second Year

Iron Work	10 recitations a week
Drawing	5 recitations a week
Mathematics	5 recitations a week
English (Hygiene, Business Forms, Accounts, etc.)	5 recitations a week

Third Year

Iron Work	10 recitations a week
Drawing	5 recitations a week
Mathematics and Science (Physics and Chemistry)	5 recitations a week
English (Study of Iron and Steel)	5 recitations a week

FITCHBURG PART TIME SCHOOL

(In this and succeeding courses the number at the right of each subject indicates the number of recitation periods per week.)

First Year

All School Work

English	5
Mathematics, tables and simple shop problems	5
Mechanics—simple machines	5
Freehand and Mechanical Drawing	5
Current Events	2

Second Year

School and Shop Work

English	4
Shop Mathematics	5
Physics	4
Mechanism of Machines	4
Freehand and Mechanical Drawing	8

Third Year

Shop and School Work

English	4
Shop Mathematics	5
Physics-Chemistry	3
Mechanism of Machines	4
Commercial Geography and Business Methods	1
Freehand and Mechanical Drawing	8

Fourth Year

School and Shop Work

English	4
Civics and American History	2
Shop Mathematics	5
Mechanism of Machines	5
Electricity and Heat	4
Freehand and Mechanical Drawing	5

The school is open 40 weeks in the year.

NEWTON, MASS., TECHNICAL HIGH SCHOOL

TECHNICAL COURSE.

Purpose of the Course.—This course prepares for admission to all normal schools; it gives an all-round academic education.

First Year.

	Periods
English	5
History, ½ year Science, ½ year	5
Singing and Physical Training	2
ELECT ONE.	
Algebra	5
French	5
German	5
Latin	5
ELECT ONE GROUP.	
Cabinet Making and Wood-turning	6
Mechanical Drawing	4
Household Economics	6
Design	4

Second Year.

English	4
ELECT TWO.	
History	4
Geometry	4
French	4
German	4
Latin	5
ELECT ONE GROUP.	
Physics	5
Light Machine and Vise Work, ½ year Forging, ½ year	6
Mechanical Drawing	4
Biology	5
Household Economics	6
Design	4

NOTE.—Singing and Physical Training (2) optional after first year.

Third Year.

English	4
Chemistry	6
ELECT TWO.	
Algebra and Geometry	4
Commercial Geog. and History	4
French	4
German	4
Latin	5
ELECT ONE GROUP.	
Pattern Making and Molding, ½ year	6
Machine Shop Practice, ½ year	6
Mechanical Drawing	4
Household Economics	6
Design	4

Fourth Year.

English	4
Am. History and Government	4
Arithmetic and Accounts	2
Visit to shops, Factories, Museums.	
ELECT TWO.	
French	4
German	4
Latin	5
Physics	5
Advanced Chemistry	6
Physiology and Hygiene	4
Biology	5
Electricity	6
Trigonometry and Surveying	4
Applied Mechanics and Steam	4
ELECT ONE GROUP.	
Machine Shop Practice	6
Machine or Architectural Drawing	4
Household Economics	6
Design	4
Stenography	5
Typewriting	5

BIBLIOGRAPHY. INDUSTRIAL EDUCATION

Bulletin No. 2 of the Society for the Promotion of Industrial Education is a "Selected Bibliography on Industrial Education" (issued July, 1907). This and other bulletins of the Society may be purchased from the Secretary, No. 20 W. 44th St., New York City.

Dean's "The Worker and the State" (Century Co., 1910) contains an excellent bibliography, as does also the "Report of the Committee on the Place of Industries in Public Education" (N. E. A. 1910; copies may be obtained at 15c each, from Secretary Irwin Shepard, Winona, Minn.). The latter includes a considerable list of articles in periodicals, from 1902 to 1909. The brief list of books and articles here printed is suggestive only and given in order that readers of this report may have immediately at hand a working list of material quickly available.

The report just mentioned and "The Worker and the State" are two of the latest and most comprehensive discussions of the general subject, from the national point of view. Of value as showing the trend of discussion in the last ten years are the following:

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Russell, James E.: The School and Industrial Life (Educational Review, December, 1909).

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Fuller description of some of the schools and plans cited in this report will be found in the following articles:

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   An "Experiment in Industrial Education," A. P. Fletcher.
   "Elementary School Teacher" (pp. 9-14), September, 1910.
2. "Fitchburg Plan of Industrial Education," W. B. Hunter.
   "School Review" (pp. 166-173), March, 1910.
3. Cincinnati Plan.
   A. "Partial Time Trade Schools," H. Schneider.
      Annals of the Americal Academy of Political and Social Science" (50-55), January, 1909.
   B. "School System."
      I. "Annals of American Academy" (173-175), January, 1905.
      II. "Good Housekeeping" (C. Reese), (pp. 610-615), May, 1910.
   C. "Continuation School."
      I. "Survey" (531-532), July, 1910.
      II. "World Today" (1211-1212), J. R. Schmidt, November, 1909.
4. Milwaukee School of Trades.
   "Work of the School," C. F. Perry.
   "Annals of American Academy" (78-84), January, 1909.

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EDUCATIONAL FUNDS

AND REPORT OF

UNIVERSITY OF MICHIGAN

EDUCATIONAL FUNDS

PRIMARY SCHOOL FUNDS

Seven per cent fund:		
Amount on which the State pays interest June 30, 1910	$4,287,610 32	
Due from purchasers of land, June 30, 1910	57,992 21	
Total seven per cent fund June 30, 1910		$4,345,602 53
Five per cent fund:		
Amount on which State pays interest, June 30, 1910		973,710 19
Total school fund June 30, 1910		$5,319,312 72

INCOME ON PRIMARY SCHOOL INTEREST FUND

Interest paid by State on seven per cent fund during year ending June 30, 1910	$300,132 72	
Interest and penalty paid by holders of land on seven per cent fund during the year ending June 30, 1910	2,513 93	
Interest paid by State on five per cent fund	48,685 50	
Total income from both funds		$351,332 15
Paid by trespassers on school land	$5 40	
Total		5 40
Total income for year ending June 30, 1910		$351,337 55

UNIVERSITY FUND

Amount on which State pays interest June 30, 1910	$543,859 40	
Interest paid by State (on land grant)		$38,511 63
Interest paid by State on deposit		50 00
Interest and penalty paid by holders of land		259 07
Total income for year ending June 30, 1910		$38,820 70

AGRICULTURAL COLLEGE

Amount on which State pays interest June 30, 1910	$985,823 49	
Interest paid by State		$71,109 49
Interest and penalty paid by holders of land		1,619 97
Paid by trespassers on land		104 00
Received from the United States government		40,000 00
Total income for year ending June 30, 1910		$112,833 46

NORMAL SCHOOL FUND

Amount on which State pays interest June 30, 1910	$69,246 04	
Interest paid by State		$4,155 05
Interest and penalty paid by holders of lands		9 57
Total income for year ending June 30, 1910		$4,164 62

UNIVERSITY OF MICHIGAN

FINANCIAL STATEMENT OF THE UNIVERSITY OF MICHIGAN FOR THE FISCAL YEAR ENDING JUNE 30, 1910

CONDENSED STATEMENT GENERAL, SPECIAL AND BUILDING FUNDS

	Receipts. 1	Disbursements. 2
Balance July 1, 1909	$142,475 27	.....
State Treasurer:		
⅜Mill Tax, General Fund	585,258 75	Column 4
University Interest Fund	38,511 63	Column 4
Special Appropriations	9,000 00	Column 8
Building Fund (saving on Mill Tax last 3 years)	325,045 46	Column 12
Miscellaneous Sources:		
General fund	473,249 03	Column 4
General Fund	Column 5	$1,006,354 77
Special Appropriations	Column 10	9,157 30
Building Fund	Column 14	301,253 60
Balance June 30, 1910	.....	166,774 47
	$1,573,540 14	$1,573,540 14

DETAILED STATEMENT GENERAL FUND.

	Student fees. 3	Receipts. 4	Disbursements. 5	Salaries. 6	Refunds. 7
Balance July 1, 1909	.....	$126,264 54	.....	.....	.....
State Treasurer, Three-eighths Mill Tax	.....	585,258 75	.....	.....	.....
State Treasurer, University Interest	.....	38,511 63	.....	.....	.....
Alumni Association	.....	.....	$1,050 00	.....	.....
Appointment Committee	.....	.....	442 02	.....	.....
Bogardus Camp Land	.....	.....	804 07	.....	.....
Barbour Gymnasium	$494 00	494 00	245 50	.....	$12 00
Contingent	.....	1,744 44	14,425 33	.....	.....
Care of Teams	.....	150 00	1,608 97	.....	.....
Carpenter Shops	.....	.....	11 08	.....	.....
Commencement	.....	.....	435 12	.....	.....
Combined Courses	1,922 00	1,922 00	295 00	.....	295 00
Diplomas	10,230 00	10,230 00	772 00	.....	100 00
Electrical Supplies	.....	212 50	5,813 97	.....	.....
Fuel	.....	1,480 51	46,324 10	.....	.....
General Catalog	.....	.....	1,055 30	.....	.....
General Library Book	.....	188 99	12,146 83	.....	.....
General Library Contingent	.....	.....	2,180 55	.....	.....
General Library Pay Roll	.....	.....	22,670 90	$22,670 90	.....
Graduate School	5,825 00	5,825 00	576 90	.....	30 00
General Pay Roll	.....	17 28	82,565 42	82,565 42	.....
Hinsdale History	.....	2 50	17 75	.....	.....
Heating Supplies	.....	.....	2,503 35	.....	.....
Interest	.....	1,340 72	.....	.....	.....
Key Deposits	530 00	530 00	512 00	.....	512 00
Humanistic Studies	.....	.....	248 47	.....	.....
Laundry	.....	851 18	11,545 68	.....	.....
Lights	.....	325 16	1,977 96	.....	.....
Museum	.....	.....	652 26	.....	.....
Observatory	.....	6 04	697 06	.....	.....
Oratorical Association	.....	.....	105 79	.....	.....
Printing	.....	.....	3,686 62	.....	.....
Postage	.....	99 44	2,363 46	.....	.....
Printing Plant	.....	197 28	2,921 82	.....	.....
Palmer Field	8 50	8 50	.....	.....	.....
Repairs	.....	18 80	33,876 94	.....	.....
Real Estate	.....	1,054 99	.....	.....	.....
Removal of Art Gallery	.....	.....	93 64	.....	.....
School Inspection	.....	.....	555 96	.....	.....

	Student fees. 3	Receipts. 4	Disbursements. 5	Salaries. 6	Refunds. 7
Summer School Literary	$10,629 00	$10,629 00	$75 00		$75 00
Summer School Law	3,605 00	3,605 00	70 00		70 00
Summer School, Medical	1,770 00	1,770 00	30 00		30 00
Summer School, Engineering	6,120 00	6,120 00	55 00		55 00
Summer School, Homeopathic	25 00	25 00			
Summer School, Graduate	2,892 00	2,892 00			
Summer School Pay Roll		288 00	37,245 00	$37,245 00	
Summer School, Barbour Gymnasium	53 00	53 00	4 00		4 00
Summer School, Waterman Gymnasium	24 00	24 00	50		50
Summer School Expenses		3 45	1,788 97		
Summer School Library			61 98		
Thesis	500 00	500 00	300 00		300 00
Teachers' Diplomas	258 00	258 00			
Telephone Rental			973 70		
Waterman Gymnasium	3,090 00	3,090 00	144 48		14 00
Water Supply			3,173 54		
Water Analysis		591 95			
Dental Department	12,620 00	12,620 00	6,056 52		135 00
Dental Library			147 15		
Dental Supplies		6,750 59			
Dental Laboratory	2,210 00	2,210 00	10 00		10 00
Dental Pay Roll			14,709 20	14,709 20	
Architecture			1,474 43		
Civil Engineering			237 59		
Chemical Engineering			193 71		
Drawing	504 00	504 00	560 61		380 50
Engineering Apparatus			7,865 85		
Engineering Administration		6 00	1,047 11		
Electrical Engineering	1,889 00	1,889 00	770 80		90 00
Engineering Shops		522 26	3,291 31		
Engineering Lockers	5 00	5 00	6 00		6 00
Engineering Department	72,947 50	72,947 50	2,719 88		2,177 50
Engineering Pay Rolls			152,146 77	152,146 77	
Engineering Library			2,137 46		
Engineering Key Tickets		174 00	49 00		49 00
Mechanical Laboratory	5,645 00	5,645 00	1,365 07		102 50
Marine		125 00	99 37		
Physics			1,974 01		
Physics (Special)	470 00	470 00	44 00		44 00
Surveying			234 31		
Summer Camp	700 50	700 50	2,532 31		10 00
Homeopathic College	4,325 00	4,325 00	1,284 27		33 00
Homeopathic Pay Roll			9,142 70	*9,142 70	
Homeopathic Library			188 84		
Homeopathic Hospital		33,097 14	23,847 19		
Homeopathic Hospital Pay Roll			11,894 72	11,894 72	
Law Department	56,576 00	56,576 00	3,473 21		2,470 00
Law Department Pay Roll		300 00	60,767 99	60,767 99	
Law Library			2,591 45		
Law Administration		32 36			
American History			166 29		
Botanical Garden		20 49	2,520 42		
Botanical Laboratory	1,429 00	1,429 00	1,887 13		58 00
Biological Camp			1,412 23		
Change of Election	12 00	12 00			
Delayed Election	112 00	112 00	1 00		1 00
Delayed Registration	60 00	60 00	5 00		5 00
English			301 80		
Education			30 10		
Forestry			654 03		
French			140 67		
Geology			438 89		
German			146 87		
Greek			26 04		
History			201 74		
Literary Department	76,585 00	76,585 00	2,473 22		2,405 00
Literary Pay Roll		6 66	239,497 95	239,497 95	
Latin			310 91		
Latin (Special)	340 00	340 00			
Music			95 72		
Mathematics			40 82		
Mineralogy	556 00	556 00	1,145 44		38 25
Political Economy	220 00	220 00	414 62		
Philosophy			308 35		
Rhetoric	150 00	150 00	61 10		
Russian Literature			179 41		
Solid Geometry	335 00	335 00	10 00		10 00
Special Examinations	75 00	75 00	5 00		5 00
Zoology	1,318 83	1,318 83	1,423 72		35 00
Anatomical Laboratory		1 35	296 14		

	Student fees. 3	Receipts. 4	Disbursements. 5	Salaries. 6.	Refunds. 7
Anatomical Material		$31 60	$2,913 95		
Demonstration Courses	$3,830 00	3,830 00	50 00		$50 00
Dermatology			41 73		
Histology	1,317 00	1,317 00	614 87		106 00
Hygiene	6,275 18	6,275 18	8,116 15		1,015 65
Medical Department	15,061 00	15,061 00	687 87		253 50
Medical Pay Roll		90 00	66,343 01	$66,343 01	
Medical Library			3,118 52		
Materia Medica			476 18		
Neurology			131 90		
Ophthalmology			341 65		
Otology			231 26		
Osteology	150 00	150 00	92 00		92 00
Pasteur Institute		2,150 00	14 40		
Physiology	571 60	571 60	457 93		5 00
Pathology	1,340 00	1,340 00	1,441 48		536 00
Pharmacology	535 00	535 00	15 00		15 00
Practical Anatomy	1,734 00	1,734 00	35 00		35 00
Surgical Department			634 43		
Theory and Practice			799 20		
University Hospital		78,555 22	42,455 76		
University Hospital Pay Roll		20 96	24,894 63	24,894 63	
Chemical Laboratory	19,232 96	19,232 96	36,446 93		3,460 14
Chemical Laboratory Pay Roll			34,055 59	34,055 59	
Pharmacy Department	5,580 00	5,580 00	195 00		195 00
Pharmacy Department Pay Roll			5,580 00	5,580 00	
Balance June 30, 1910			126,929 18		
Total Student Fees	$342,792 07	$1,223,283 95	$1,223,283 95	$761,513 88	$15,622 54
Less Fees Refunded Column 7	15,622 54			Total salaries.	Fees refunded.
Student Fees Net	$327,169 53				

DETAILED STATEMENT SPECIAL APPROPRIATIONS.

HOMEOPATHIC MEDICAL COLLEGE.

	Receipts. 8	Total. 9	Disbursements. 10	Total. 11
Balance July 1, 1909		$747 44		
From State Treasurer	$6,000 00	6,000 00		
Paid Vouchers			*$6,157 30	$6,157 30
Balance June 30, 1910				590 14
		$6,747 44		$6,747 44

SUMMER HOSPITALS

From State Treasurer	$3,000 00	$3,000 00		
Paid Vouchers			$3,000 00	$3,000 00
		$3,000 00		$3,000 00

PSYCHOPATHIC WARD.

Balance overdrawn July 1, 1909				$9,464 63
Balance overdrawn June 30, 1910		$9,464 63		
	$9,000 00	$9,464 63	$9,157 30	$9,464 63

DETAILED STATEMENT BUILDING ACCOUNT.

ACCUMULATION OF SAVINGS.

Equipment of Observatory.

	Receipts. 12	Total. 13	Disbursements. 14	Total. 15
Balance July 1, 1909		$829 58		
Paid Vouchers			$777 07	$777 07
Balance June 30, 1910				52 51
		$829 58		$829 58

Equipment to Engineering Laboratory.

Balance July 1, 1909		$2,340 25		
Paid Vouchers			$2,236 93	$2,236 93
Balance June 30, 1910		2,340 25		103 32
		$2,340 25		$2,340 25

New Dental Building.

Balance July 1, 1909		$337 71		
Paid Vouchers			$290 13	$290 13
Balance June 30, 1910				47 58
		$337 71		$337 71

Addition to Observatory.

Balance July 1, 1909		$718 07		
From State Treasurer	$1,616 50	1,616 50		
Paid Vouchers			$1,269 53	$1,269 53
Balance June 30, 1910				1,065 04
		$2,334 57		$2,334 57

Equipment New Dental Building.

Balance July 1, 1909		$275 53		
From State Treasurer	$250 00	250 00		
Paid Vouchers			$511 63	$511 63
Balance June 30, 1910				13 90
		$525 53		$525 53

New Chemical Laboratory.

Balance July 1, 1909		$4,716 75		
From State Treasurer	$141,000 00	141,000 00		
Paid Vouchers			$134,907 87	$134,907 87
Balance June 30, 1910				10,808 88
		$145,716 75		$145,716 75

Addition to Engineering Building.

Balance July 1, 1909		$15,710 03		
From State Treasurer	$64,000 00	64,000 00		
From Other Sources	178 96	178 96		
Paid Vouchers			$66,534 45	$66,534 45
Balance June 30, 1910				13,354 54
		$79,888 99		$79,888 99

Alumni Memorial Building.

	Receipts. 12	Total. 13	Disbursements. 14	Total. 15
From State Treasurer	$50,000 00	$50,000 00		
Paid Vouchers			$50,000 00	$50,000 00
		$50,000 00		$50,000 00

Repairs to Old Chemical Laboratory.

From State Treasurer	$35,000 00	$35,000 00		
Paid Vouchers			$19,301 25	$19,301 25
Balance June 30, 1910				15,698 75
		$35,000 00		$35,000 00

Eye and Ear Ward.

From State Treasurer	$33,000 00	$33,000 00		
Paid Vouchers			$25,424 74	$25,424 74
Balance June 30, 1910				7,575 26
	$325,045 46	$33,000 00	$301,253 60	$33,000 00

SPECIAL AND BUILDING FUNDS.

SUMMARY OF BALANCES JUNE 30, 1910.

Psychopathic Ward Overdraft	$9,464 63	
Balance on hand June 30, 1910	39,845 29	
		$49,309 92

Credit Balances.

Homeopathic Medical College	$590 14	
Equipment of Observatory	52 51	
Equipment of Engineering Laboratory	103 32	
New Dental Building	47 58	
Addition to Observatory	1,065 04	
Equipment of New Dental Building	13 90	
New Chemical Laboratory	10,808 88	
Addition to Engineering Building	13,354 54	
Repairs to Old Chemical Laboratory	15,698 75	
Eye and Ear Ward	7,575 26	
		$49,309 92
*Pay Roll Homeopathic College General Fund	$9,142 70	
Pay Roll Homeopathic College Special Account	6,157 30	
		$15,300 00

GIFT AND TRUST FUNDS.

Under this head are included gifts and other funds which the Regents have received from time to time from benefactors for special purposes. The new accounts opened during the year are: Chas. L. Freer gift for binding facsimile Deuteronomy and Joshua manuscript—Furnum Bequest to Palmer Fund—Instructor Biological Station—Motor Boat for Biological Station—Oliver Scholarship—Stevens Classical Fellowship.

CONDENSED STATEMENT.

Total Funds July 1, 1909	$299,237 60
Interest, Rentals, etc	138,827 30
New Funds, Contributions, etc	53,037 95
	$491,102 85
Expenditures	177,122 50
Balance in funds June 30, 1910	313,980 35
	$491,102 85

TABULATED STATEMENT (DETAILED).

Name.	Amount in fund July 1, '09.	Income.		Expenditures.	Amount in fund June 30, '10.
		Interest or rentals.	Contributions.		
Adams Book Fund	$684 83	$15 59	.....	$433 30	$267 12
A. M. Todd Prize Fund	200 00	.....	.....	100 00	100 00
Alice Freeman Palmer Memorial	1,976 67	62 44	$343 00	.....	2,382 11
Allopathic Hospital Fund	2,597 17	152 53	.....	675 97	2,073 73
American School at Rome	45	.....	.....	.....	45
A. B. Whittier Botany Fellowship	4,231 78	175 63	.....	200 00	4,207 41
Ann Arbor Branch Collegiate Alumnae	257 49	87	.....	.....	258 36
Bates Professorship Fund	127,956 33	8,172 40	.....	5,170 12	130,958 61
Buhl Classical Fellowship	150 40	9 57	500 00	400 00	259 97
Buhl Library Fund	224 41	6 40	.....	50 00	180 81
Ben Greet Dramatic Fund	298 81	8 33	433 50	730 56	10 08
Bronze Doors, Memorial Building	650 00	9 77	.....	659 77	.....
Binding Manuscript, Deuteronomy and Joshua	.....	.....	650 00	408 73	241 27
Carnegie Fund Adv. of Teaching	.....	.....	3,244 05	3,244 05	.....
Class of '94 Scholarship	2,311 78	130 47	.....	.....	2,442 25
Class of '97 Scholarship	244 12	6 89	.....	.....	251 01
Class of '98 Scholarship	462 55	5 07	.....	.....	467 62
Class of '99 Law Fellowship	41 22	.....	.....	.....	41 22
Class of '03 Memorial	171 31	5 13	4 00	.....	180 44
Coyl Collection Library Fund	10,068 72	603 74	.....	302 06	10,370 40
Ford-Messer Fund	20,524 10	1,418 57	.....	1,144 96	20,797 71
Frederick Stearns & Co. Pharmacy Fellowship	51 20	1 61	.....	.....	52 81
Gas Association Fellowship	18	3 90	1,825 00	1,557 55	271 53
Goethe Fund	356 26	10 77	.....	48	366 55
Good Government Club	901 69	27 27	.....	.....	928 96
Humanistic Series Fund	398 81	7 95	524 27	663 29	267 74
Homeopathic Hospital Trust Fund	.....	37,291 41	.....	33,246 14	4,045 27
Instructor Biological Station	.....	.....	100 00	.....	100 00
James B. Angell Fund	2,859 42	700 11	.....	.....	3,649 53
L. H. Stone Sup. Loan Fund	6,253 00	297 83	.....	.....	6,550 83
M. J. Furnum Bequest	.....	7 50	1,000 00	.....	1,007 50
Marine Biological Laboratory	50 00	.....	50 00	50 00	50 00
Morris Alumni Fund	3,897 70	223 02	.....	.....	4,120 72
Motor Boat Biological Station	.....	.....	150 00	132 30	17 70
Music Hall Fund	1,738 49	52 71	.....	.....	1,791 20
Newton Vander Veer Loan Fund	494 13	14 95	.....	.....	509 08
Oliver Scholarship	.....	.....	100 00	.....	100 00
Observatory Library Book Fund	1 50	08	10 00	.....	11 58
Palmer Memorial Free Bed Fund	15,365 13	597 26	.....	336 23	15,626 16
Parke, Davis & Co. Fund	50 00	.....	.....	.....	50 00
Peter White Fellowship Fund American History	174 80	5 30	.....	.....	180 10
Peter White Classical Fellowship	10 54	45	.....	.....	10 99
Peter White Medical Library	54 47	1 15	.....	21 00	34 62
Phillips Scholarship Fund	1,571 98	305 76	.....	150 00	1,727 74
Pittsburg Alumni Scholarship Fund	3 93	07	.....	.....	4 00
Philo Parsons Fund	145 12	4 38	.....	.....	149 50
Philosophy Fellowship, Victoria Morris	50 00	.....	400 00	400 00	50 00
Philosophy Library, Victoria Morris	18 06	58	50 00	24 64	44 00
Refractor Fund, Observatory	949 86	33 28	.....	341 93	641 21
Saginaw Valley Alumnae Association Scholarship Fund	243 97	1 80	.....	.....	245 77
Special Latin Fund	22 62	66	.....	.....	23 28
Students' Lecture Association	1,416 09	60 15	.....	.....	1,476 24
Seth Harrison Scholarship Fund	30,132 33	1,712 50	.....	1,615 00	30,229 83
Stevens Classical Fellowship	.....	.....	300 00	300 00	.....
Treadwell Free Bed	95 28	53 37	.....	147 57	1 08
University Hospital Trust Fund	.....	83,598 42	.....	78,605 72	4,992 70
Walter Crabe Fund	210 42	6 04	.....	50 00	166 46
‡Walter Crane Fund Property Account	10,744 61	455 40	.....	.....	11,200 01
Warner Fund	5 59	15	.....	.....	5 74
Williams Professorship Fund	5,261 69	309 67	.....	50 00	5,521 36
‡Williams Professorship Property Account	18,639 94	1,070 81	.....	.....	19,710 75
Wm. Wilson, Jr., Pharmacy Fund	93	.....	.....	.....	93
Woman's Gym. Fund—Peter White	110 45	3 33	.....	.....	113 78
Woman's Professorship Fund	15,740 68	917 09	.....	.....	16,657 77
Webster Scholarship	1,050 00	60 89	.....	.....	1,110 89
Total	$292,123 01	$138,711 02	$9,683 82	$131,211 37	$309,306 48
Alumni Memorial Building Fund	$7,114 59	$116 28	$43,354 13	$45,911 13	$4,673 87
Grand total	$299,237 60	$138,827 30	$53,037 95	$177,122 50	$313,980 35

‡The care of the Williams Professorship Property Account and the Walter Crane Property Account has been in the hands of Mr. George S. Field. A summary of the report of Mr. Field is an appendix to the present report. (See Appendix.)

INVESTMENT DISTRIBUTION OF GIFT AND TRUST FUNDS.

Name.	Cash in bank.	Loans or property.	Total.
Adams Book Fund	$267 12		$267 12
A. M. Todd Prize Fund	100 00		100 00
Alice Freeman Palmer Memorial	2,382 11		2,382 11
Allopathic Hospital Fund	73 73	$2,000 00	2,073 73
American School at Rome	45		45
A. B. Whittier Botany Fellowship	1,207 41	3,000 00	4,207 41
Ann Arbor Branch Collegiate Alumnae	58 36	200 00	258 36
Bates Professorship Fund	17,796 83	113,161 78	130,958 61
Buhl Classical Fellowship	259 97		259 97
Buhl Law Library Fund	180 81		180 81
Ben Greet Dramatic Fund	10 08		10 08
Binding Manuscript, Deuteronomy and Joshua	241 27		241 27
Class of '94 Scholarship	942 25	1,500 00	2,442 25
Class of '97 Scholarship	239 01	12 00	251 01
Class of '98 Scholarship	175 62	292 00	467 62
Class of '99 Scholarship	3 22	38 00	41 22
Class of '03 Memorial	180 44		180 44
Coyl Collection Library Fund	2,470 40	7,900 00	10,370 40
Ford-Messer Fund	5,797 71	15,000 00	20,797 71
Frederick Stearns & Co. Pharmacy Fellowship	52 81		52 81
Gas Association Fund	271 53		271 53
Goethe Fund	366 55		366 55
Good Government Club	928 96		928 96
Humanistic Series Fund	267 74		267 74
Homeopathic Hospital Trust Fund	4,045 27		4,045 27
James B. Angell Fund	3,649 53		3,649 53
Instructor Biological Station	100 00		100 00
L. H. Stone Supplementary Loan Fund	3,770 83	2,780 00	6,550 83
M. J. Furnum Bequest	1,007 50		1,007 50
Marine Biological Laboratory	50 00		50 00
Morris Alumni Fund	1,120 72	3,000 00	4,120 72
Music Hall Fund	1,791 20		1,791 20
Motor Boat Biological Station	17 70		17 70
Newton Van Der Verr Loan Fund	509 08		509 08
Oliver Scholarship	100 00		100 00
Observatory Library Book Fund	11 58		11 58
Palmer Memorial Free Bed	3,716 80	11,909 36	15,626 16
Parke, Davis & Co. Fund	50 00		50 00
Peter White Fellowship American History	180 10		180 10
Peter White Classical Fellowship	10 99		10 99
Peter White Medical Library	34 62		34 62
Phillips Scholarship Fund	1,727 74		1,727 74
Pittsburg Alumni Scholarship	4 00		4 00
Philo Parsons Fund	149 50		149 50
Philosophy Fellowship, Victoria Morris	50 00		50 00
Philosophy Library, Victoria Morris	44 00		44 00
Refractor Fund, Observatory	641 21		641 21
Saginaw Valley Alumnæ Association Scholarship Fund	40 77	205 00	245 77
Special Latin Fund	23 28		23 28
Students' Lecture Association	161 54	1,314 70	1,476 24
Seth Harrison Scholarship	4,729 83	25,500 00	30,229 83
Treadwell Free Bed	1 08		1 08
University Hospital Trust Fund	4,992 70		4,992 70
Walter Crane Fund	166 46	11,200 01	11,366 47
Warner Fund	5 74		5 74
Williams Professorship Fund	1,521 36	23,710 75	25,232 11
Wm. Wilson, Jr., Pharmacy Fund	93		93
Woman's Gymnasium, Peter White	113 78		113 78
Woman's Professorship Fund	5,257 77	11,400 00	16,657 77
Webster Scholarship	10 89	1,100 00	1,110 89
Total	$74,082 88	$235,223 60	$309,306 48
Alumni Memorial Building Fund	4,673 87		4,673 87
Grand total	$78,756 75	$235,223 60	$313,980 35

‡APPENDIX A.

WILLIAMS PROFESSORSHIP FUND (PROPERTY ACCOUNT).

This is in the hands of Mr. George S. Field for management, and the summary of his report from June 15, 1909, to June 15, 1910, is as follows;

June 15, 1910. Cash on hand	$1,204 07	
Real Estate Mortgages	17,000 00	
Real Estate	1,506 68	
		$19,710 75
Contra.		
Total amount in valuation on hand at last report, June 15, 1909	$18,639 94	
Net gain in value for year ending June 15, 1910	1,070 81	
		$19,710 75

‡APPENDIX B.

WALTER CRANE FUND (PROPERTY ACCOUNT).

This is in the hands of Mr. George S. Field for management, and the summary of his report from June 15, 1909, to June 15, 1910, is as follows

June 15, 1910. Cash on hand	$277 23		
Land Contracts	20,629 92		
		$20,907 15	$20,907 15
Contra.			
Total amount in valuation on hand at last report, June 15, 1910	$21,973 18		
Less payments made by Field	2,150 00		
		$19,823 18	
Net gain in value for year ending June 15, 1910		1,083 97	
			$20,907 15
Total amount in valuation on hand June 15, 1910		$20,907 15	
Subject to loan of		9,707 14	
Total Walter Crane Property Account		11,200 01	

STATISTICAL TABLES

STATISTICAL TABLES

TABLE I.

Comparative summary of statistics for the year 1909-1910.

Items.	1909.	1910.	Increase.	Decrease.
Districts and Schools.				
Number of townships and cities reporting	1,313	1,326	13	
Number of graded school districts	587	591	4	
Number of ungraded school districts	6,743	6,742		1
Total	7,330	7,333	3	
Number of township unit districts	146	147	1	
School census of graded school districts	449,186	465,989	16,803	
School census of ungraded school districts	306,749	305,482		1,267
Total	755,935	771,471	15,536	
Enrollment in graded school districts	319,164	327,213	8,049	
Enrollment in ungraded school districts	216,686	214,288		2,398
Total	535,850	541,501	5,651	
Enrollment in graded school districts:				
Resident pupils	319,164	327,213	8,049	
Non-resident pupils	12,411	13,038	627	
Total	331,575	340,251	8,676	
Enrollment in ungraded school districts:				
Resident pupils	216,686	214,288		2,398
Non-resident pupils	7,426	7,672	246	
Total	224,112	221,960		2,152

TABLE I.—*Continued.*

Items.	1909.	1910.	Increase.	Decrease.
Enrollment in all school districts:				
Resident pupils	535,850	541,501	5,651	
Non-resident pupils	19,837	20,710	873	
Total	555,687	562,211	6,524	
Enrollment in city school districts	248,685	261,752	13,067	
Percentage of attendance for the State	75	74		1
Percentage of attendance in graded school districts	85	84		1
Number of districts reporting having maintained school	7,251	7,278	27	
Average duration in months in graded schools	9.4	9.4		
Average duration in months in ungraded schools	8.5	8.5		
Average for the state	8.6	8.6		
Number of private and parochial schools reported	482	461		21
Number of men teachers in such schools	356	342		14
Number of women teachers in such schools	981	1,050	69	
Estimated number of pupils attending such schools	60,834	61,539	705	
Number of day schools for the deaf in the State	16	14		2
Number of teachers employed in same	28	29	1	
Number of pupils attending same	198	197		1
Number of county normal training classes in the State	40	42	2	
Number of teachers employed in same	132	134	2	
Number of graduates	588	584		4
Number of Rural High Schools in the State	2	2		
Number of teachers employed in same	2	2		
Number of pupils attending same	46	22		24
Number of County Agricultural Schools in the State		1	1	
Number of teachers employed in same		4	4	
Number of pupils attending same		56	56	
Number of graduates for the current year		9	9	
Teachers and their employments.				
Number of teachers necessary to supply graded schools	8,962	9,317	355	
Number of teachers necessary to supply ungraded schools	7,617	7,555		62
Total	16,579	16,872	293	

TABLE I.—*Continued.*

Items.	1909.	1910.	Increase.	Decrease.
Number of men teachers employed in graded schools	1,151	1,113	.....	38
Number of men teachers employed in ungraded schools	1,434	1,395	.....	39
Total	2,585	2,508	.....	77
Number of women teachers employed in graded schools	8,075	8,377	302	.....
Number of women teachers employed in ungraded schools	7,103	7,102	.....	1
Total	15,178	15,479	301	.....
Whole number of different teachers employed in graded schools	9,226	9,490	264	.....
Whole number of different teachers employed in ungraded schools	8,537	8,497	.....	40
Total	17,763	17,987	224	.....
Average number of months taught by men in graded schools	9.4	10.2	.8	.....
Average number of months taught by men in ungraded schools	7.7	7.4	.....	.3
General average	8.5	8.6	.1	.....
Average number of months taught by women in graded schools	9.56	9.48	.....	.08
Average number of months taught by women in ungraded schools	7.64	7.89	.25	.....
General average	8.66	8.75	.09	.....
Total wages of men teachers in graded schools	$1,100,725 12	$1,199,627 46	$98,902 34	.....
Total wages of men teachers in ungraded schools	530,188 97	519,684 32	.....	$10,504 65
Total	$1,630,914 09	$1,719,311 78	$88,397 69	.....
Total wages of women teachers in graded schools	$4,482,225 66	$4,777,360 81	$295,135 15	.....
Total wages of women teachers in ungraded schools	2,155,047 42	2,275,647 83	120,600 41	.....
Total	$6,637,273 08	$7,053,008 64	$415,735 56	.....
Aggregate wages of all teachers in graded schools	$5,582,950 78	$5,976,988 27	$394,037 49	.....
Aggregate wages of all teachers in ungraded schools	2,685,236 39	2,795,332 15	110,095 76	.....
Total	$8,268,187 17	$8,772,320 42	$504,133 25	.....
Aggregate wages of teachers in city school districts	$3,860,331 92	$4,120,532 30	$260,210 38	.....

TABLE I.—*Continued.*

Items.	1909.	1910.	Increase.	Decrease.
Average monthly wages of men teachers in graded schools	$101 64	$105 32	$3 68	
Average monthly wages of men teachers in ungraded schools	48 02	50 19	2 17	
Average monthly wages of men teachers in all schools	$74 61	$79 07	$4 46	
Average monthly wages of women teachers in graded schools	$57 79	$60 10	$2 31	
Average monthly wages of women teachers in ungraded schools	39 67	40 59	92	
Average monthly wages of women teachers in all schools	$50 43	$52 03	$1 60	
Examination and certification of teachers.				
Number of public examinations held	183	218	35	
Number of applicants for regular certificates	8,403	9,159	756	
Number of county first grade certificates granted	53	46		7
Number of indorsed first grade certificates granted	32	29		3
Number of second grade certificates granted	1,594	1,945	351	
Number of third grade certificates granted	2,850	3,321	471	
Whole number of regular certificates granted	4,529	5,341	812	
Number of applicants for special certificates	724	770	46	
Number of special certificates granted	367	634	267	
Number holding certificates issued or indorsed by State Board of Education	631	850	219	
Number holding normal school certificates	1,777	2,833	1,056	
Number holding certificates issued by city boards of education	1,766	2,417	651	
Number holding county normal training class certificates	1,478	1,916	438	
Whole number of legally qualified teachers	16,319	19,113	2,794	
Number licensed without previous experience in teaching	1,436	1,677	241	
Number of applicants who had attended state normal	1,231	1,762	531	
Number of applicants who had attended institutes during the year	3,390	3,207		183
School Property.				
Number of schoolhouses	8,491	8,598	107	
Number of schoolhouses to be built during year	111	119	8	
Cost of same	$1,582,308 35	$1,555,524 50		$26,783 85
Estimated value of property in graded school districts	$28,734,855 00	$30,179,242 00	$1,444,387 00	
Estimated value of property in ungraded school districts	6,846,114 00	7,017,533 00	171,419 00	
Total	$35,580,969 00	$37,196,775 00	$1,615,806 00	
Financial.				
Amount of one-mill tax received	$826,780 09	$899,098 49	$72,318 40	
Amount of primary school interest fund received	5,199,041 40	5,707,562 38	508,520 98	
Amount received from non-resident tuition	146,020 72	171,734 61	25,713 89	
Amount received from district taxes	4,934,381 62	6,099,345 44	1,164,963 82	
Amount received from all other sources	1,314,855 91	1,010,950 15		$303,905 76

TABLE I.—*Continued.*

Items.	1909.	1910.	Increase.	Decrease.
Total net receipts	$12,421,079 74	$13,888,691 07	$1,467,611 33	
Amount received from loans	1,368,325 14	1,879,180 43	510,855 29	
Balance on hand from preceding year	8,586,241 08	6,771,699 56		$1,814,541 52
Total resources, including amount on hand from preceding year	$22,375,645 96	$22,539,571 06	$163,925 10	
Amount paid men teachers	$1,631,677 44	$1,719,179 28	$87,501 84	
Amount paid women teachers	6,640,246 07	7,052,716 93	412,470 86	
Amount paid for building, repairs and site	3,047,675 52	2,075,235 78		$972,439 74
Amount paid for general purposes	3,235,764 71	3,584,964 80	349,200 09	
Amount paid for library purposes	135,600 72	163,721 74	28,121 02	
Total net expenditures	$14,690,964 46	$14,595,818 53		$95,145 93
Amount paid on bonded indebtedness	893,612 13	1,146,246 80	$252,634 67	
Balance carried to next year	6,791,069 37	6,797,505 73	6,436 36	
Total expenditures including amount on hand	$22,375,645 96	$22,539,571 06	$163,925 10	
Total expenditures in graded school districts	$10,840,652 96	$10,623,560 64		$217,092 32
Total expenditures in ungraded school districts	3,850,311 50	3,972,257 89	$121,946 39	
Total net expenditures	$14,690,964 46	$14,595,818 53		$95,145 93
Total bonded indebtedness of districts	$4,446,279 29	$5,190,277 81	$743,998 52	
Total floating indebtedness of districts	454,385 39	303,782 16		$150,603 23
Total indebtedness	$4,900,664 68	$5,494,059 97	$593,395 29	
Total amount due the districts	$457,535 17	$456,102 14		$1,433 03
Amount received from non-resident tuition in graded school districts	$137,502 89	$162,209 65	$24,706 76	
Amount received from non-resident tuition in ungraded school districts	8,517 83	9,524 96	1,007 13	
Total	$146,020 72	$171,734 61	$25,713 89	
School Libraries.				
Number of townships reporting libraries	380	271		109
Number of districts reporting libraries	5,672	5,802	130	
Total number of libraries	6,052	6,073	21	
Number of volumes in township libraries	191,870	218,135	26,265	
Number of volumes in district libraries	1,354,449	1,458,748	104,299	
Total number of volumes in all libraries	1,546,319	1,676,883	130,564	

TABLE I.—*Continued.*

Items.	1909.	1910.	Increase.	Decrease.
Amount of taxes voted for township libraries	$4,882 36	$7,709 33	$2,826 97	
Amount received from county treasurers for township libraries	12,522 71	12,996 81	474 10	
Number of townships forfeiting library money	845	1,057	212	
Amount paid for support of township libraries	$19,959 88	$23,041 69	$3,081 81	
Amount paid for support of district libraries	135,600 72	163,721 74	28,121 02	
Teachers' Institutes.				
Number of state institutes held	145	148	3	
Number of men enrolled at such institutes	1,357	1,138		219
Number of women enrolled at such institutes	7,241	6,253		988
Total enrollment	8,598	7,391		1,207
Amount received from state treasurer for such institutes	$1,456 52	$1,588 79	$132 27	
Amount received from county treasurers for such institutes	9,994 72	10,219 82	225 10	
Total amount expended	$11,451 24	$11,808 61	$357 37	
Miscellaneous.				
Number of counties reporting county teachers' associations	51	58	7	
Amount per diem received by examiners	$17,563 89	$20,693 86	$3,129 97	
Amount paid commissioners of schools	77,960 00	91,670 00	13,710 00	
Total compensation	$95,523 89	$112,363 86	$16,839 97	
Amount allowed by supervisors for expenses of county boards	$12,023 55	$12,783 21	$759 66	
Amount paid and due inspectors for services	11,128 49	10,965 80	162 69	
Amount paid chairmen of boards of inspectors	58,301 63	62,677 39	4,375 76	
Total amount of primary school interest fund apportioned	$4,466,148 00	$5,581,521 40	$1,115,373 40	
Rate per capita, May apportionment	$5 00	$6 50	$1 50	
Rate per capita, November apportionment	1 00	90		$0 10
Rate per capita, per year	$6 00	$7 40	$1 40	
Number of eighth grade diplomas granted during year	6,762	9,000	2,238	
Number of pupils in eighth grade exclusive of graded schools	14,238	15,804	1,566	

TABLE I.—*Concluded.*

Items.	1909.	1910.	Increase.	Decrease.
Number of districts furnishing free text-books	853	1,245	392	.....
Number of districts reporting dictionaries in schools	6,349	7,677	1,328	.....
Number of districts reporting globes in schools	5,639	7,007	1,368	.....
Number of districts reporting maps in schools	5,946	7,255	1,309	.....
Total number of U. S. flags in school districts	7,358	7,400	42	.....
Total number of children in the State, blind or with defective vision	320	321	1	.....
Number of Rural High Schools in State	2	2	.....	.....
Number of pupils enrolled in such schools	46	†22	.....	24
Number of County Agricultural Schools in State	.....	1	1	.....
Number of pupils enrolled in such schools	.....	56	56	.....

†No report from Excelsior township.

TABLE II.

Fiftieth and fifty-first semi-annual apportionment of the primary school interest fund.

Counties.	Apportionment made May 10, 1910, rate per capita, $6.50.			Apportionment made November 10, 1910, rate per capita, 90c.		
	Whole number of children.	Number of children included in apportionment.	Amount apportioned.	Whole number of children.	Number of children included in apportionment.	Amount apportioned.
Totals	755,829	754,112	$4,901,728 00	755,769	755,326	$679,793 40
Alcona	2,031	2,031	$13,201 50	2,031	2,031	$1,827 90
Alger	1,973	1,973	12,824 50	1,973	1,973	1,775 70
Allegan	11,382	11,382	73,983 00	11,382	11,382	10,243 80
Alpena	6,673	6,673	43,374 50	6,673	6,673	6,005 70
Antrim	4,643	4,538	*a* 29,773 00	4,643	4,624	*d* 4,720 60
Arenac	3,539	3,539	23,003 50	3,539	3,539	3,185 10
Baraga	2,037	2,037	13,240 50	2,037	2,037	1,833 30
Barry	5,786	5,786	37,609 00	5,786	5,786	5,207 40
Bay	22,276	22,276	144,794 00	22,276	22,276	20,048 40
Benzie	3,390	3,390	22,035 00	3,390	3,390	3,051 00
Berrien	14,464	14,464	94,016 00	14,298	14,298	12,868 20
Branch	6,336	6,325	41,112 50	6,336	6,325	5,692 50
Calhoun	13,027	13,005	84,532 50	13,027	13,005	11,704 50
Cass	4,940	4,934	32,071 00	4,940	4,934	4,440 60
Charlevoix	5,665	5,665	36,822 50	5,665	5,665	5,098 50
Cheboygan	5,941	5,941	38,616 50	5,941	5,941	5,346 90
Chippewa	7,449	7,416	48,204 00	7,449	7,449	*e* 6,918 60
Clare	3,178	3,170	20,605 00	3,178	3,170	2,853 00
Clinton	6,264	6,254	40,651 00	6,264	6,254	5,628 60
Crawford	1,127	1,107	7,195 50	1,127	1,107	996 30
Delta	9,539	9,515	61,847 50	9,539	9,515	8,563 50
Dickinson	6,890	6,890	44,785 00	6,890	6,890	6,201 00
Eaton	7,112	7,107	46,195 50	7,112	7,107	6,396 30
Emmet	5,717	5,717	37,160 50	5,717	5,717	5,145 30
Genesee	11,449	11,449	74,418 50	11,498	11,498	*f* 10,666 70
Gladwin	2,982	2,941	19,116 50	2,982	2,966	*g* 2,831 90
Gogebic	6,890	6,890	44,785 00	6,890	6,890	6,201 00
Grand Traverse	6,307	6,250	40,625 00	6,307	6,307	*h* 6,046 80
Gratiot	8,429	8,396	54,574 00	8,429	8,429	*i* 7,800 60
Hillsdale	7,417	7,376	47,944 00	7,417	7,405	*j* 6,853 00
Houghton	26,627	26,627	173,075 50	26,627	26,627	23,964 30
Huron	11,887	11,887	77,265 50	11,887	11,887	10,698 30
Ingham	11,117	11,098	72,137 00	11,117	11,102	*k* 10,017 80
Ionia	8,081	8,081	52,526 50	8,081	8,081	7,272 90
Iosco	3,373	3,373	21,924 50	3,415	3,415	*l* 3,346 50
Iron	3,633	3,627	23,575 50	3,633	3,627	3,264 30
Isabella	6,969	6,969	45,298 50	6,969	6,969	6,272 10
Jackson	11,604	11,597	75,380 50	11,604	11,597	10,437 30
Kalamazoo	13,359	13,295	86,417 50	13,359	13,351	*m* 12,379 90
Kalkaska	2,329	2,329	15,138 50	2,329	2,329	2,096 10
Kent	40,294	40,294	261,911 00	40,294	40,294	36,264 60
Keweenaw	1,927	1,927	12,525 50	1,927	1,927	1,734 30
Lake	1,668	1,626	10,569 00	1,668	1,626	1,463 40
Lapeer	6,775	6,775	44,037 50	6,775	6,775	6,097 50
Leelanau	3,467	3,467	22,535 50	3,467	3,467	3,120 30
Lenawee	11,853	11,826	76,869 00	11,853	11,826	10,643 40
Livingston	4,493	4,471	29,061 50	4,493	4,490	*n* 4,090 50
Luce	977	970	6,305 00	977	970	873 00
Mackinac	2,678	2,676	17,394 00	2,678	2,676	2,408 40
Macomb	9,702	9,702	63,063 00	9,702	9,702	8,731 80

TABLE II.—*Concluded.*

Counties.	Apportionment made May 10, 1910, rate per capita, $6.50.			Apportionment made November 10, 1910, rate per capita, 90c.			
	Whole number of children.	Number of children included in apportionment.	Amount apportioned.	Whole number of children.	Number of children included in apportionment.	Amount apportioned.	
Manistee	8,978	8,978	$58,357 00	8,993	8,978	$8,080 20	
Marquette	14,338	14,334	93,171 00	14,338	14,334	12,900 60	
Mason	6,930	6,913	44,934 50	6,930	6,913	6,221 70	
Mecosta	6,253	6,160	40,040 00	6,253	6,226	6,218 40	*op*
Menominee	9,571	9,569	62,198 50	9,571	9,569	8,612 10	
Midland	4,755	4,755	30,907 50	4,755	4,755	4,279 50	
Missaukee	3,731	3,724	*bc* 24,753 20	3,731	3,724	3,351 60	
Monroe	9,702	9,647	62,705 50	9,702	9,702	9,089 30	*q*
Montcalm	9,390	9,390	61,035 00	9,390	9,390	8,451 00	
Montmorency	1,177	1,177	7,650 50	1,177	1,177	1,059 30	
Muskegon	11,758	11,484	74,646 00	11,758	11,758	12,363 20	*rs*
Newaygo	6,073	6,069	39,448 50	6,073	6,069	5,462 10	
Oakland	11,293	11,009	71,558 50	11,293	11,272	11,854 30	*t*
Oceana	5,715	5,645	36,692 50	5,715	5,707	5,539 30	*u*
Ogemaw	3,135	3,135	20,377 50	3,135	3,135	2,821 50	
Ontonagon	2,553	2,542	16,523 00	2,553	2,542	2,287 80	
Osceola	5,982	5,969	38,798 50	5,982	5,969	5,372 10	
Oscoda	707	691	4,491 50	707	691	621 90	
Otsego	2,335	2,277	14,800 50	2,335	2,334	2,471 10	*v*
Ottawa	13,875	13,875	90,187 50	13,875	13,875	12,487 50	
Presque Isle	3,722	3,722	24,193 00	3,722	3,722	3,349 80	
Roscommon	664	655	4,257 50	664	664	656 10	*w*
Saginaw	25,988	25,988	168,922 00	25,988	25,988	23,389 20	
St. Clair	15,040	15,040	97,760 00	15,040	15,040	13,536 00	
St. Joseph	5,872	5,872	38,168 00	5,872	5,872	5,284 80	
Sanilac	11,003	11,003	71,519 50	11,003	11,003	9,902 70	
Schoolcraft	2,626	2,626	17,069 00	2,626	2,626	2,363 40	
Shiawassee	8,033	8,033	52,214 50	8,033	8,033	7,229 70	
Tuscola	10,131	10,131	65,851 50	10,131	10,131	9,117 90	
Van Buren	9,040	9,018	58,617 00	9,040	9,040	8,279 00	*x*
Washtenaw	11,498	11,492	74,698 00	11,498	11,492	10,342 80	
Wayne	119,953	119,953	779,694 50	119,953	119,953	107,957 70	
Wexford	6,342	6,182	40,183 00	6,342	6,331	6,666 40	*y*

a Includes $276.00 deficiency to district 3 Central Lake Twp. for May and November, 1909.
b Includes $331.20 deficiency to district 6 Norwich Twp. for May and November, 1908.
c Includes $216.00 deficiency to district 6 Norwich Twp. for May and November, 1909.
d Includes $559.00 deficiency to district 9 Banks Twp. for May, 1910.
e Includes $214.50 deficiency to district 7 Rudyard Twp. for May, 1910.
f Includes $318.50 deficiency to Flint City for May, 1910.
g Includes $162.50 deficiency to district 3 Billings Twp. for May, 1910.
h Includes $370.50 deficiency to district 2 East Bay for May, 1910.
i Includes $214.50 deficiency to district 7 New Haven Twp. for May, 1910.
j Includes $188.50 deficiency to district 1 fr Pittsford Twp. for May, 1910.
k Includes $26.00 deficiency to district 4 Stockbridge Twp. for May, 1910.
l Includes $273.00 deficiency to district 5 Tawas Twp. for May, 1910.
m Includes $364.00 deficiency to district 6 fr Brady Twp. for May, 1910.
n Includes $58.50 deficiency to district 3 Iosco Twp. for May, 1910.
o Includes $361.50 deficiency to district 3 fr Aetna Twp. for May and November, 1909, and May, 1910.
p Includes $253.50 deficiency to district 5 Deerfield Twp. May, 1910.
q Includes $357.50 deficiency to district 9 Ash Twp. for May, 1910.
r Includes $656.50 deficiencies to districts 3 and 1 fr Casnovia for May, 1910.
s Includes $1,124.50 deficiency to district 3 Egelston for May, 1910.
t Includes $1,709.50 deficiencies to various districts for May, 1910.
u Includes $403.00 deficiencies to districts 4 Colfax and 7 Elbridge for May, 1910.
v Includes $370.50 deficiencies to districts 4 and 7 Corwith Twp. for May, 1910.
w Includes $58.50 deficiency to district 4 Markey Twp. for May, 1910.
x Includes $143.00 deficiency to district 1 Keeler Twp. for May, 1910.
y Includes $968.50 deficiencies to various districts for May, 1910.

TABLE III.—*Concluded.*

Counties.	Number of townships and cities reporting.	Whole number of school districts.	Number of districts that maintained school.	Number of graded school districts.	Number of township unit districts.	Number of children 5 years of age and under 20.	Number of children 5 years of age and under 20 that attended school during the year.	Whole number of days of school.	Percentage of attendance.	Number of schoolhouses.	Estimated value of school property.	Number of schoolhouses to be built during ensuing year.	Average number months of school.
Ottawa	17	123	123	22	.....	13,814	9,983	22,080	80	132	$490,950 00	2	8.8
Presque Isle	14	36	33	3	5	3,778	2,549	5,880	74	49	73,500 00	1	8.9
Roscommon	8	28	25	1	.....	675	540	3,881	71	26	20,025 00	.....	7.8
Saginaw	29	163	163	10	.....	26,413	15,507	28,721	74	187	1,354,496 00	2	8.8
St. Clair	26	156	156	9	.....	14,822	10,004	27,950	74	173	936,825 00	.....	8.9
St. Joseph	18	123	123	8	.....	6,028	4,974	21,028	77	128	355,761 00	.....	8.4
Sanilac	28	154	153	21	.....	10,940	8,756	28,167	65	156	284,475 00	3	9.2
Schoolcraft	10	10	10	1	9	2,629	1,894	1,905	75	37	112,500 00	2	9.5
Shiawassee	18	124	124	10	.....	8,173	6,283	22,345	76	128	428,200 00	.....	9.0
Tuscola	23	152	152	13	.....	10,213	7,258	26,020	69	155	237,361 00	2	8.6
Van Buren	19	150	150	15	.....	9,003	6,915	25,417	77	159	339,675 00	.....	8.5
Washtenaw	22	166	165	8	.....	11,425	7,643	29,162	79	175	715,700 00	1	8.8
Wayne	22	151	149	22	.....	128,056	81,794	27,285	73	248	6,913,582 00	5	9.1
Wexford	17	82	81	7	.....	6,199	4,869	13,402	74	89	277,980 00	2	8.3

TABLE IV.

Employment of teachers as reported by township clerks for the year ending July 11, 1910.

Counties.	Number of teachers required.		Number of different teachers employed.		Aggregate number of months taught.		Total wages of teachers.			Average monthly wages.	
	Graded schools.	Ungraded schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Totals	9,317	7,555	2,508	15,479	21,744	135,549	$1,719,311 78	$7,053,008 64	$8,772,320 42	$79 04	$52 03
Alcona	4	41	13	31	105	276	$5,879 50	$11,086 00	$16,965 50	$56 00	$40 17
Alger	39	19	10	51	95	479	8,330 00	25,580 84	33,910 84	87 68	53 41
Allegan	92	186	51	240	432	2,035	25,726 35	88,092 42	113,818 77	59 55	43 29
Alpena	68	61	7	118	70	1,081	6,350 00	49,470 25	55,820 25	70 71	45 76
Antrim	65	73	16	126	136	1,057	10,453 47	47,390 33	57,843 80	76 86	44 83
Arenac	28	42	19	58	153	485	8,288 00	19,948 50	28,236 50	54 17	41 13
Baraga	32	9	10	32	100	303	8,400 00	15,465 00	23,865 00	84 00	51 04
Barry	54	133	35	177	296	1,445	17,603 64	62,513 10	80,116 74	59 47	43 26
Bay	211	93	41	272	382	2,568	33,721 50	147,013 70	180,735 20	88 28	57 25
Benzie	40	48	18	80	140	599	9,870 00	27,456 74	37,326 74	70 50	47 51
Berrien	166	145	63	289	524	2,472	39,907 99	120,706 46	160,614 45	76 16	48 83
Branch	72	117	43	161	376	1,346	24,003 00	62,231 68	86,234 68	63 84	46 24
Calhoun	270	157	51	340	440	3,049	34,336 19	145,424 42	179,760 61	78 04	47 69
Cass	59	106	32	141	274	1,183	17,832 25	52,393 08	70,225 33	65 08	44 29
Charlevoix	81	71	19	152	154	1,125	10,956 08	53,161 62	64,117 70	71 14	47 25
Cheboygan	60	67	12	122	109	1,032	9,685 00	47,947 30	57,632 30	88 85	46 46
Chippewa	83	71	26	135	227	1,216	18,555 12	62,337 46	80,892 58	81 30	51 26
Clare	25	67	19	83	157	611	8,522 25	24,253 88	32,776 13	54 23	39 70
Clinton	59	122	30	168	252	1,402	15,295 50	59,925 76	75,221 26	60 70	42 74
Crawford	12	28	4	46	30	280	2,316 00	12,217 25	14,533 25	77 20	43 63
Delta	123	64	19	164	186	1,570	17,434 50	75,436 67	92,871 17	93 73	48 01
Dickinson	108	51	21	135	185	1,275	18,395 00	73,910 04	92,305 04	99 43	57 97
Eaton	110	122	35	230	286	1,855	18,950 75	82,069 35	101,020 10	66 26	44 24
Emmet	67	69	25	125	199	961	14,623 75	45,748 12	60,371 87	73 49	47 60
Genesee	164	151	40	285	346	2,599	25,892 50	121,433 90	147,326 40	74 83	46 72
Gladwin	15	52	13	61	112	502	5,210 00	19,149 71	24,359 71	46 52	38 15
Gogebic	136	29	16	151	148	1,488	16,032 50	81,826 33	97,858 83	108 31	54 99
Grand Traverse	76	73	21	140	176	1,126	13,758 00	54,964 83	68,722 83	78 17	48 81
Gratiot	69	126	42	196	345	1,526	21,362 50	65,930 53	87,293 03	61 92	43 20
Hillsdale	95	159	64	201	550	1,729	30,747 27	69,330 27	100,077 54	55 90	40 10

TABLE IV.—*Concluded.*

Counties.	Number of teachers required.		Number of different teachers employed.		Aggregate number of months taught.		Total wages of teachers.			Average monthly wages.	
	Graded schools.	Ungraded schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Houghton	503	58	62	577	605	5,267	$69,937 25	$312,585 78	$382,523 03	$115 60	$59 35
Huron	84	117	58	153	481	1,356	30,499 50	63,098 25	93,597 75	63 41	46 53
Ingham	194	124	42	281	375	2,491	25,154 37	113,967 56	139,121 93	67 08	45 75
Ionia	110	130	40	224	303	1,898	19,725 25	83,804 03	103,529 28	65 10	44 15
Iosco	44	26	10	62	96	564	6,955 00	24,077 19	31,032 19	72 46	42 69
Iron	97	10	18	97	155	899	14,283 25	47,535 65	61,818 90	92 15	52 90
Isabella	35	104	26	118	232	1,006	14,654 50	44,868 25	59,522 75	63 16	44 60
Jackson	160	146	40	303	345	2,533	28,485 00	122,252 42	150,737 42	82 57	42 83
Kalamazoo	228	118	66	336	570	2,783	44,409 08	156,733 75	201,142 83	77 90	56 32
Kalkaska	20	49	7	71	57	546	4,165 00	23,570 00	27,735 00	73 07	43 17
Kent	591	196	75	742	680	6,913	72,530 25	457,600 75	530,131 00	106 66	64 74
Keweenaw	.....	45	6	40	55	372	3,950 00	20,119 64	24,069 64	71 82	55 36
Lake	11	45	8	53	57	370	3,012 00	14,226 27	17,238 27	52 84	38 04
Lapeer	62	113	33	171	276	1,476	17,376 15	59,046 75	76,422 90	62 96	40 00
Leelanau	16	59	24	61	182	474	10,874 81	20,404 50	31,279 31	59 75	43 05
Lenawee	116	191	52	294	436	2,347	31,876 35	117,677 22	149,553 57	73 11	51 23
Livingston	38	131	30	168	220	1,297	11,591 25	47,668 08	59,259 33	52 68	36 75
Luce	20	15	5	33	38	277	3,542 50	13,457 25	16,999 75	93 22	48 59
Mackinac	17	56	14	64	117	547	7,863 30	25,407 00	33,270 30	67 21	46 45
Macomb	97	93	31	173	276	1,574	20,675 50	72,429 68	93,105 18	74 98	46 02
Manistee	89	80	22	158	172	1,397	13,897 31	71,625 75	85,523 06	76 78	51 60
Marquette	250	51	37	272	347	2,896	40,056 50	154,670 50	194,727 00	115 44	53 61
Mason	68	74	15	133	128	1,097	8,611 50	54,830 07	63,441 57	67 28	49 98
Mecosta	47	105	22	155	169	1,164	10,205 50	47,824 51	58,030 01	60 39	41 09
Menominee	99	77	21	170	176	1,491	17,282 50	74,636 59	91,919 09	98 31	50 06
Midland	28	83	18	97	155	825	7,583 00	33,319 25	40,902 25	48 92	40 38
Missaukee	30	63	18	87	131	636	8,210 37	27,024 67	35,235 04	62 75	42 49
Monroe	44	145	37	147	291	1,362	19,416 50	59,675 01	79,091 51	66 72	43 78
Montcalm	84	136	41	192	341	1,646	20,525 50	69,535 59	90,061 09	60 19	39 18
Montmorency	16	24	7	33	62	293	2,840 00	10,665 00	13,505 00	40 81	36 40
Muskegon	183	87	33	248	301	2,214	30,852 52	119,305 13	150,157 65	102 50	53 93
Newaygo	40	122	30	153	267	1,119	13,614 20	46,298 07	59,912 27	50 99	41 37
Oakland	149	190	37	319	344	2,797	25,180 25	118,303 81	143,484 06	73 20	40 87
Oceana	41	106	24	140	189	1,070	11,394 45	47,199 22	58,593 67	60 29	44 11
Ogemaw	21	50	9	66	77	529	4,305 00	22,066 75	26,371 75	55 91	41 71

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TABLE IV.—*Concluded.*

Counties.	Number of teachers required.		Number of different teachers employed.		Aggregate number of months taught.		Total wages of teachers.			Average monthly wages.	
	Graded schools.	Ungraded schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Houghton	503	58	62	577	605	5,267	$69,937 25	$312,585 78	$382,523 03	$115 60	$59 35
Huron	84	117	58	153	481	1,356	30,499 50	63,098 25	93,597 75	63 41	46 53
Ingham	194	124	42	281	375	2,491	25,154 37	113,967 56	139,121 93	67 08	45 75
Ionia	110	130	40	224	303	1,898	19,725 25	83,804 03	103,529 28	65 10	44 15
Iosco	44	26	10	62	96	564	6,955 00	24,077 19	31,032 19	72 46	42 69
Iron	97	10	18	97	155	899	14,283 25	47,535 65	61,818 90	92 15	52 90
Isabella	35	104	26	118	232	1,006	14,654 50	44,868 25	59,522 75	63 16	44 60
Jackson	160	146	40	303	345	2,533	28,485 00	122,252 42	150,737 42	82 57	42 83
Kalamazoo	228	118	66	336	570	2,783	44,409 08	156,733 75	201,142 83	77 90	56 32
Kalkaska	20	49	7	71	57	546	4,165 00	23,570 00	27,735 00	73 07	43 17
Kent	591	196	75	742	680	6,913	72,530 25	457,600 75	530,131 00	106 66	64 74
Keweenaw	.....	45	6	40	55	372	3,950 00	20,119 64	24,069 64	71 82	55 36
Lake	11	45	8	53	57	370	3,012 00	14,226 27	17,238 27	52 84	38 04
Lapeer	62	113	33	171	276	1,476	17,376 15	59,046 75	76,422 90	62 96	40 00
Leelanau	16	59	24	61	182	474	10,874 81	20,404 50	31,279 31	59 75	43 05
Lenawee	116	191	52	294	436	2,347	31,876 35	117,677 22	149,553 57	73 11	51 23
Livingston	38	131	30	168	220	1,207	11,591 25	47,668 08	59,259 33	52 68	36 75
Luce	20	15	5	33	38	277	3,542 50	13,457 25	16,999 75	93 22	48 59
Mackinac	17	56	14	64	117	547	7,863 30	25,407 00	33,270 30	67 21	46 45
Macomb	97	93	31	173	276	1,574	20,675 50	72,429 68	93,105 18	74 98	46 02
Manistee	89	80	22	158	172	1,397	13,897 31	71,625 75	85,523 06	76 78	51 60
Marquette	250	51	37	272	347	2,896	40,056 50	154,670 50	194,727 00	115 44	53 61
Mason	68	74	15	133	128	1,097	8,611 50	54,830 07	63,441 57	67 28	49 98
Mecosta	47	105	22	155	169	1,164	10,205 50	47,824 51	58,030 01	60 39	41 09
Menominee	99	77	21	170	176	1,491	17,282 50	74,636 59	91,919 09	98 31	50 06
Midland	28	83	18	97	155	825	7,583 00	33,319 25	40,902 25	48 92	40 38
Missaukee	30	63	18	87	131	636	8,210 37	27,024 67	35,235 04	62 75	42 49
Monroe	44	145	37	147	291	1,362	19,416 50	59,675 01	79,091 51	66 72	43 78
Montcalm	84	136	41	192	341	1,646	20,525 50	69,535 59	90,061 09	60 19	39 18
Montmorency	16	24	7	33	62	293	2,840 00	10,665 00	13,505 00	40 81	36 40
Muskegon	183	87	33	248	301	2,214	30,852 52	119,305 13	150,157 65	102 50	53 93
Newaygo	40	122	30	153	267	1,119	13,614 20	46,298 07	59,912 27	50 99	41 37
Oakland	149	190	37	319	344	2,797	25,180 25	118,303 81	143,484 06	73 20	40 87
Oceana	41	106	24	140	189	1,070	11,394 45	47,199 22	58,593 67	60 29	44 11
Ogemaw	21	50	9	66	77	529	4,305 00	22,066 75	26,371 75	55 91	41 71

Ontonagon	57	34	13	78	118	745	9,970 00	39,360 75	49,330 75	84 49	52 83
Osceola	51	94	20	141	179	1,101	12,135 00	47,897 87	60,032 87	67 80	43 54
Oscoda		28	7	26	58	168	2,580 00	6,418 00	8,998 00	44 48	38 20
Otsego	18	39	9	66	69	433	4,390 00	20,020 19	24,410 19	63 62	46 23
Ottawa	158	111	54	228	472	2,095	31,172 25	95,371 42	126,543 67	66 04	45 52
Presque Isle	29	41	12	62	113	516	7,365 97	22,611 63	29,977 60	65 19	43 82
Roscommon	4	26	5	35	31	190	1,581 00	7,766 44	9,347 44	51 00	40 88
Saginaw	285	170	61	412	564	3,761	53,379 20	204,495 96	257,875 16	94 64	54 37
St. Clair	154	155	42	271	350	2,561	24,645 75	116,013 09	140,658 84	70 42	45 30
St. Joseph	101	116	41	194	342	1,575	21,326 53	68,254 26	89,580 79	62 36	43 34
Sanilac	73	142	70	149	626	1,313	40,869 75	58,804 25	99,674 00	65 29	44 94
Schoolcraft	32	36	9	60	82	562	6,096 00	29,863 98	35,959 98	75 56	53 23
Shiawassee	109	117	28	219	257	1,877	19,178 88	80,496 90	99,675 78	74 63	42 89
Tuscola	83	143	36	205	313	1,786	19,391 75	72,567 27	91,959 02	61 95	40 63
Van Buren	112	139	42	229	349	1,900	24,586 81	80,670 08	105,256 89	70 45	42 51
Washtenaw	173	158	34	306	331	2,787	32,666 12	131,717 45	164,383 57	98 69	40 09
Wayne	1,695	157	170	1,712	1,634	16,760	221,431 50	1,291,248 75	1,512,680 25	135 51	77 23
Wexford	68	78	22	175	165	1,218	12,571 25	57,504 87	70,076 12	76 19	47 21

TABLE V

Resources of school districts as reported by township clerks for the year ending July 11, 1910.

Counties.	Ordinary receipts.							Received from loans.	Money on hand July 12, 1909.	Total resources including amount on hand and loans.
	One mill tax.	Primary school interest fund.	Library money.	Tuition of non-resident pupils.	District taxes for all purposes.	Raised from all other sources.	Total net receipts.			
Totals	$899,098 49	$5,707,562 38	$202,011 08	$171,734 61	$6,099,345 44	$808,939 07	$13,888,691 07	$1,879,180 43	$6,771,699 56	$22,539,571 06
Alcona	$48 71	$15,725 88	$196 84	$91 10	$6,626 04	$1,069 25	$23,757 82	$603 89	$30,577 41	$54,939 12
Alger		14,961 48	347 19		50,919 30	1,414 90	67,642 87	6,600 00	12,723 82	86,966 69
Allegan	8,539 34	85,591 11	1,976 54	3,174 26	58,493 42	4,926 34	162,701 01	16,320 39	133,334 35	312,355 75
Alpena	14,742 89	43,241 50	193 05	117 52	6,811 75	3,860 00	68,966 71	25 00	65,984 78	134,976 49
Antrim	4,015 37	35,495 53	544 78	666 72	42,679 72	3,052 82	86,454 94	4,196 34	48,778 57	139,429 85
Arenac	157 36	26,942 67	437 60	149 38	12,567 61	6,831 28	47,085 90	4,028 51	48,318 93	99,433 34
Baraga	1,522 37	15,140 17	148 15		20,118 79	4,284 07	41,213 55	35,000 00	18,378 59	94,592 14
Barry	12,243 11	44,251 30	418 26	3,472 38	43,536 08	2,618 82	106,539 95	10,765 00	40,538 31	157,843 26
Bay	297 07	168,412 00	186 25	1,624 75	122,846 64	10,997 53	304,064 24	12,092 42	240,352 27	556,508 93
Benzie	1,527 71	24,522 04	468 34	257 10	25,432 84	1,977 73	54,185 76	11,688 27	20,815 57	86,689 60
Berrien	12,278 68	110,793 73	1,268 55	4,768 34	102,514 40	8,956 92	240,580 62	25,685 89	137,133 04	403,399 55
Branch	13,731 27	47,620 36	952 21	3,564 42	49,752 59	2,414 23	118,035 08	3,039 06	61,446 38	182,520 52
Calhoun	18,173 00	97,359 00	1,615 93	4,892 91	182,676 34	3,887 77	308,604 95	35,173 76	89,598 19	433,376 90
Cass	13,460 24	40,339 17	603 07	1,453 99	38,472 37	2,893 92	97,222 76	13,859 01	33,865 79	144,947 56
Charlevoix	3,590 44	41,641 49	813 40	517 24	51,998 46	6,928 50	105,489 53	48,218 45	44,251 73	197,959 71
Cheboygan	2,183 49	45,815 99	3,438 15	792 02	44,023 30	4,034 78	100,287 73	3,477 26	57,846 10	161,611 09
Chippewa	10,702 93	48,161 00	603 11	9 00	78,085 04	5,834 17	143,395 25	4,123 87	84,367 55	231,886 67
Clare	1,310 54	25,710 05	54 71	450 05	15,355 79	4,705 86	47,587 00	2,282 75	39,575 63	89,445 38
Clinton	13,730 15	46,757 94	428 58	3,575 30	34,666 63	8,590 79	107,749 39	2,585 97	65,539 73	175,875 09
Crawford	54 75	8,283 96	11 43	39 33	9,585 86	1,985 84	19,961 17	319 26	16,759 23	37,039 66
Delta	3,585 60	71,298 00	795 70	872 39	72,120 58	5,777 13	154,449 40	5,315 84	54,149 31	213,914 55
Dickinson	6,392 14	53,290 23	902 24	804 50	103,190 97	6,398 88	170,978 96	9,000 00	71,688 99	251,667 95
Eaton	18,060 06	54,474 12	580 09	4,546 03	54,381 76	3,491 56	135,533 62	10,754 88	66,362 71	212,651 21
Emmet	4,579 81	44,201 07	719 17	449 35	39,994 34	2,695 45	92,639 19	1,050 92	56,902 32	150,592 43
Genesee	30,883 58	85,984 54	1,656 79	6,205 77	95,690 09	8,120 32	228,541 09	81,207 78	102,776 65	412,525 52
Gladwin	640 70	23,169 00	399 17	452 08	12,720 12	3,774 62	41,155 69	1,179 26	41,335 68	83,670 63
Gogebic	10,052 54	51,650 00	758 15	358 50	117,177 49	11,499 76	191,496 44	76,256 16	94,521 31	362,273 91
Grand Traverse	6,043 79	45,997 69	282 10	2,335 87	48,462 20	5,400 43	108,522 08	2,710 00	57,546 51	168,778 59
Gratiot	8,240 50	64,487 05	917 04	2,463 92	50,588 56	5,406 34	132,103 41	17,818 87	90,582 30	240,504 58
Hillsdale	20,810 91	55,069 68	920 46	5,269 73	57,141 21	1,930 81	141,142 80	29,844 60	49,157 53	220,144 93

Houghton	72,842 33	198,977 50	7,350 54	10,421 83	352,602 57	36,167 77	678,362 54	39,122 25	423,479 45	1,140,964 24
Huron	6,818 05	97,805 95	1,858 76	1,617 97	37,694 07	3,581 74	149,376 54	4,818 06	167,621 76	321,816 36
Ingham	25,244 67	82,403 42	4,096 39	3,986 60	133,290 33	5,094 03	254,115 44	62,753 82	100,573 80	417,443 06
Ionia	15,027 30	60,021 06	1,119 91	4,858 77	57,896 45	9,237 55	148,161 04	53,100 42	67,338 07	268,599 53
Iosco	801 30	26,893 31	168 36	312 27	14,375 34	5,151 40	47,701 98	4,164 31	38,062 45	89,928 74
Iron	11,466 53	33,703 50	1,526 90	50 00	72,248 85	16,163 13	135,158 91	97,900 00	24,273 05	257,331 96
Isabella	2,338 78	52,259 65	1,397 24	1,046 81	32,006 31	5,126 77	94,175 56	6,060 04	86,040 12	186,275 72
Jackson	30,391 88	103,705 94	3,524 07	3,871 45	104,156 24	2,233 43	247,883 01	37,597 10	54,632 31	340,112 42
Kalamazoo	33,840 51	100,429 51	2,150 39	4,381 35	164,836 03	7,708 02	313,345 81	118,702 77	71,540 10	503,588 68
Kalkaska	2,140 56	18,061 74	855 79	372 69	18,895 06	2,574 99	42,900 83	4,368 50	25,200 25	72,469 58
Kent	88,324 29	301,639 57	1,312 55	7,080 40	361,603 91	25,126 35	785,087 07	359,797 99	223,835 18	1,368,720 24
Keweenaw	6,530 75	14,293 50	431 43	.....	23,396 45	663 38	45,315 51	.....	17,971 00	63,286 51
Lake	208 37	13,498 74	38 05	45 00	10,530 93	1,876 40	26,197 49	6,956 01	16,896 32	50,019 82
Lapeer	12,700 16	49,351 58	1,134 13	3,112 32	30,914 05	3,068 60	100,280 84	3,097 84	77,451 92	180,830 60
Leelanau	1,345 46	26,970 95	76 17	459 20	13,650 40	1,539 16	44,041 34	1,435 45	46,893 00	92,369 79
Lenawee	30,313 38	87,414 56	5,985 96	7,331 68	92,917 35	4,896 26	228,859 19	32,969 69	87,565 73	349,394 61
Livingston	15,060 60	34,425 76	610 96	2,244 50	20,193 00	1,093 60	73,618 42	1,982 09	38,817 24	114,417 75
Luce	1,763 88	8,417 00	283 00	153 35	36,587 08	143 27	47,347 58	.....	4,951 89	52,299 47
Mackinac	1,919 68	20,014 00	339 78	452 92	23,180 93	2,537 06	48,444 37	10,700 00	25,286 37	84,430 74
Macomb	15,442 95	73,442 00	1,644 72	2,465 62	44,149 45	6,394 41	143,539 15	7,275 57	142,434 26	293,248 98
Manistee	8,356 32	67,957 69	523 53	1,291 66	41,437 03	5,595 63	125,161 86	4,403 84	80,808 08	210,373 78
Marquette	26,142 65	106,129 00	9,115 28	95 00	236,012 54	9,343 08	386,837 55	125,774 32	114,624 04	627,235 91
Mason	1,792 87	54,906 62	344 76	922 02	40,520 61	6,559 54	105,046 42	22,549 38	58,038 60	185,634 40
Mecosta	4,196 68	45,255 82	327 60	395 66	28,225 92	7,978 86	86,380 54	6,144 76	71,328 39	163,853 69
Menominee	6,698 15	78,384 18	507 76	733 50	62,694 56	4,550 92	153,569 07	1,712 29	73,304 99	228,586 35
Midland	1,120 28	35,737 50	204 13	965 78	16,750 61	3,715 35	58,493 65	41,729 21	61,838 55	102,061 41
Missaukee	1,493 22	28,431 07	176 00	64 12	20,080 52	2,140 93	52,385 86	1,775 04	43,663 84	97,824 74
Monroe	4,372 68	74,264 80	3,214 49	2,457 41	26,247 13	2,708 19	113,264 70	57,154 29	101,540 65	271,959 64
Montcalm	6,331 04	71,803 63	854 14	2,845 04	42,827 76	4,112 99	128,774 60	4,962 44	103,844 92	237,581 96
Montmorency	125 83	9,573 50	135 45	.....	9,024 20	979 67	19,838 65	150 00	15,410 73	35,399 38
Muskegon	13,919 19	87,265 78	893 87	1,680 13	84,291 40	49,633 10	237,683 47	2,613 70	122,369 95	362,667 12
Newaygo	5,153 49	47,943 24	455 95	867 24	32,093 95	5,022 91	91,536 78	23,340 99	75,211 78	190,089 55
Oakland	32,124 82	82,391 84	2,300 21	5,748 92	66,236 92	6,116 61	194,919 32	8,715 18	83,893 58	287,528 08
Oceana	2,022 62	43,407 50	870 53	1,459 04	33,782 09	5,866 08	87,407 86	4,365 81	57,887 45	149,661 12
Ogemaw	116 73	23,447 12	156 45	191 00	11,098 05	2,700 24	37,709 59	525 00	45,688 92	83,923 51
Ontonagon	3,559 84	18,021 50	232 20	.....	50,587 66	1,796 35	74,197 55	15,605 00	24,343 32	114,145 87
Osceola	2,718 93	46,199 94	469 82	1,025 55	32,437 02	2,050 22	84,901 48	5,647 99	62,754 70	153,303 27
Oscoda	342 64	6,172 40	21 96	3 00	5,640 32	1,775 26	13,955 58	.....	14,774 24	28,729 82
Otsego	1,819 68	16,911 97	490 23	235 50	20,332 37	3,329 29	43,119 04	300 00	28,434 08	71,853 12
Ottawa	6,182 65	103,832 78	977 78	2,695 62	72,840 54	8,068 48	194,597 85	37,802 57	137,013 06	369,413 48

TABLE V.—*Concluded.*

Counties.	Ordinary receipts.							Received from loans.	Money on hand July 12, 1909.	Total resources including amount on hand and loans.
	One mill tax.	Primary school interest fund.	Library money.	Tuition of non-resident pupils.	District taxes for all purposes.	Raised from all other sources.	Total net receipts.			
Presque Isle	$1,534 43	$27,172 00	$296 41	$43 00	$23,620 06	$1,898 87	$54,564 77	$11,969 07	$52,465 77	$118,999 61
Roscommon	540 93	5,446 40	58 19	.....	6,219 43	1,836 82	14,101 77	451 00	13,229 85	27,782 62
Saginaw	2,033 01	196,880 74	2,268 17	4,555 31	181,100 74	12,593 11	399,431 08	5,623 28	258,169 90	663,224 26
St. Clair	19,797 95	113,889 00	2,431 41	1,883 87	70,469 75	6,051 11	214,523 09	1,840 14	152,669 36	369,032 59
St. Joseph	15,354 34	44,232 60	896 16	3,102 29	63,903 14	1,403 88	128,892 41	11,767 74	32,566 69	173,226 84
Sanilac	4,259 38	80,745 88	725 82	2,570 00	36,836 01	10,896 57	136,033 66	25,942 80	131,473 24	293,449 70
Schoolcraft	2,701 03	14,839 50	907 21	521 45	33,380 67	2,896 43	55,246 29	5,000 00	43,777 04	104,023 33
Shiawassee	14,925 57	59,754 07	2,131 98	3,360 47	54,064 80	3,232 30	137,469 19	11,954 16	63,130 27	212,553 62
Tuscola	7,831 35	77,730 43	578 67	3,353 30	39,220 27	4,576 87	133,290 89	13,005 13	122,551 54	268,847 56
Van Buren	15,823 56	66,931 22	1,023 24	6,849 85	51,828 64	4,074 29	146,530 80	11,060 06	85,563 92	243,174 78
Washtenaw	34,836 64	86,925 64	897 28	9,915 26	112,467 94	6,120 00	251,162 76	41,396 47	85,677 90	378,237 13
Wayne	28,942 11	897,139 91	108,412 82	3,511 39	1,156,673 96	329,980 02	2,524,660 21	43,906 97	555,342 93	3,123,910 11
Wexford	5,817 40	47,720 12	569 43	753 55	42,943 74	3,196 96	101,001 20	1,947 38	82,263 73	185,212 31

TABLE VI

Expenditures of school districts as reported by township clerks for the year ending July 11, 1910.

Counties.	Ordinary expenditures for maintaining the schools.						Paid on indebtedness (principal).	Amount on hand July 11, 1910.	Total expenditures including amount on hand and paid on indebtedness.
	Paid men teachers.	Paid women teachers.	Paid for building, repairs and site.	Paid for books and care of library.	Paid for general purposes.	Total net expenses.			
Totals	$1,719,179 28	$7,052,716 93	$2,075,235 78	$163,721 74	$3,584,964 80	$14,595,818 53	$1,146,246 80	$6,797,505 73	$22,539,571 06
Alcona	$5,879 50	$11,072 00	$2,694 62	$38 16	$5,482 03	$25,166 31	$800 10	$28,972 71	$54,939 12
Alger	8,330 00	25,530 84	3,884 83	518 24	24,512 94	62,776 85	4,600 00	19,589 84	86,966 69
Allegan	25,726 35	88,092 42	36,367 44	1,270 39	35,483 58	186,940 18	8,432 98	116,982 59	312,355 75
Alpena	6,350 00	49,470 25	7,197 87	710 34	20,707 70	84,436 12	900 00	49,640 23	134,976 49
Antrim	10,453 47	47,390 33	7,864 39	326 46	18,857 31	84,891 96	5,989 30	48,548 59	139,429 85
Arenac	8,288 00	19,948 50	4,264 65	300 43	12,989 22	45,790 80	4,525 81	49,116 73	99,433 34
Baraga	8,400 00	15,465 00	34,359 39	141 98	12,762 98	71,129 35	3,972 49	19,490 30	94,592 14
Barry	17,603 64	62,513 10	3,923 31	775 41	19,273 58	104,089 04	16,422 10	37,332 12	157,843 26
Bay	33,721 50	147,013 70	35,020 05	795 53	60,942 03	277,492 81	24,275 23	254,740 89	556,508 93
Benzie	9,870 00	27,456 74	3,048 94	355 42	13,731 25	54,462 35	8,143 57	24,083 68	86,689 60
Berrien	39,907 99	120,706 46	26,806 02	1,214 80	46,406 08	235,041 35	27,358 03	141,000 17	403,399 55
Branch	24,003 00	62,231 68	11,713 08	957 35	22,838 25	121,743 36	5,136 43	55,640 73	182,520 52
Calhoun	34,336 19	145,424 42	8,341 06	4,544 13	171,660 10	364,305 90	5,908 31	63,162 69	433,376 90
Cass	17,832 25	52,393 08	4,787 94	369 03	18,402 17	93,784 47	15,572 83	35,590 26	144,947 56
Charlevoix	10,956 08	53,161 62	43,583 73	840 21	28,330 21	136,871 85	19,427 96	41,659 90	197,959 71
Cheboygan	9,685 00	47,947 30	6,400 30	1,604 40	28,102 70	93,739 70	4,880 05	62,991 34	161,611 09
Chippewa	18,555 12	62,274 46	13,059 61	728 99	37,299 13	131,917 31	2,248 00	97,721 36	231,886 67
Clare	8,522 25	24,253 86	4,416 03	78 37	10,619 06	47,889 57	223 99	41,331 82	89,445 38
Clinton	15,295 50	59,925 76	3,936 61	523 88	22,675 61	102,357 36	6,003 59	67,514 14	175,875 09
Crawford	2,316 00	12,177 25	3,107 54	27 22	4,953 43	22,581 44	1,093 30	13,364 92	37,039 66
Delta	17,434 50	75,436 67	9,121 49	394 27	48,673 93	151,060 86	9,020 90	53,233 69	213,914 55
Dickinson	18,395 00	73,910 04	35,893 97	4,492 88	51,413 40	184,105 29	5,250 00	62,312 66	251,667 95
Eaton	18,950 75	82,069 35	14,377 96	760 69	27,169 84	143,328 59	4,426 61	64,896 01	212,651 21
Emmet	14,623 75	45,748 12	3,891 66	796 51	20,829 33	85,889 37	5,551 72	59,151 34	150,592 43
Genesee	25,892 50	121,433 90	24,670 57	4,392 07	56,141 83	232,530 87	14,409 19	165,525 46	412,525 52
Gladwin	5,210 00	19,149 71	1,812 20	168 19	10,704 75	37,044 85	2,806 29	43,819 49	83,670 63
Gogebic	16,032 50	81,826 33	66,307 31	624 08	59,195 53	223,985 75	57,016 96	81,271 20	362,273 91
Grand Traverse	13,758 00	54,954 83	7,341 49	475 99	25,103 24	101,633 55	4,840 28	62,304 76	168,778 59
Gratiot	21,362 50	65,930 53	5,020 68	689 32	35,717 84	128,720 87	19,928 85	91,854 86	240,504 58
Hillsdale	30,747 27	69,330 27	7,527 04	603 37	30,858 86	139,066 81	34,956 69	46,121 43	220,144 93

TABLE VI.—*Concluded.*

Counties.	Ordinary expenditures for maintaining the schools.						Paid on indebtedness (principal).	Amount on hand July 11, 1910.	Total expenditures including amount on hand and paid on indebtedness.
	Paid men teachers.	Paid women teachers.	Paid for building, repairs and site.	Paid for books and care of library.	Paid for general purposes.	Total net expenses.			
Houghton	$69,937 25	$312,585 78	$112,273 61	$8,008 69	$219,550 44	$722,355 77	$31,060 18	$387,548 29	$1,140,964 24
Huron	30,499 50	63,098 25	5,675 99	355 97	30,284 12	129,913 83	15,017 69	176,884 84	321,816 36
Ingham	25,154 37	113,967 66	108,799 73	7,976 18	44,339 10	300,237 04	13,479 27	103,726 75	417,443 06
Ionia	19,725 25	83,804 03	11,131 54	742 58	35,094 27	150,497 67	33,965 12	84,136 74	268,599 53
Iosco	6,955 00	24,077 19	2,491 89	268 07	13,268 82	47,060 97	4,799 11	38,068 66	89,928 74
Iron	14,283 25	47,498 15	32,187 72	1,125 64	38,230 88	133,325 64	15,500 00	108,506 32	257,331 96
Isabella	14,654 50	44,868 25	12,234 22	444 22	21,692 74	93,893 93	7,459 51	84,922 28	186,275 72
Jackson	28,485 00	122,252 42	22,386 57	2,383 62	48,751 48	224,259 09	46,853 09	69,000 24	340,112 42
Kalamazoo	44,409 08	156,993 75	20,780 85	9,996 40	109,643 31	341,823 39	117,368 00	44,397 29	503,588 68
Kalkaska	4,165 00	23,570 00	1,277 53	572 18	8,727 38	38,312 09	6,182 70	27,974 79	72,469 58
Kent	72,530 25	457,600 75	434,665 63	1,863 46	162,823 66	1,129,483 75	29,994 70	209,241 79	1,368,720 24
Keweenaw	3,950 00	20,119 64	567 69	515 65	14,315 47	39,468 45	.....	23,818 06	63,286 51
Lake	3,012 00	14,191 27	8,143 61	18 55	6,202 69	31,568 12	577 51	17,874 19	50,019 82
Lapeer	17,376 15	59,046 75	3,946 94	505 56	21,198 47	102,073 87	5,929 61	72,827 12	180,830 60
Leelanau	10,874 81	20,404 50	4,842 20	28 50	8,719 52	44,869 53	2,601 70	44,898 56	92,369 79
Lenawee	31,876 35	117,677 22	16,937 27	4,987 37	52,156 36	223,634 57	45,600 42	80,159 62	349,394 61
Livingston	11,591 25	47,668 08	2,233 83	312 03	16,226 77	78,031 96	1,237 17	35,148 62	114,417 75
Luce	3,542 50	13,457 25	4,451 80	283 40	14,063 25	35,798 20	8,500 00	8,001 27	52,299 47
Mackinac	7,863 30	25,407 00	3,865 33	332 04	14,754 61	52,222 28	8,700 00	23,508 46	84,430 74
Macomb	20,675 50	72,465 68	31,189 75	3,850 13	33,820 98	162,002 04	15,584 71	115,662 23	293,248 98
Manistee	13,897 31	71,625 75	11,099 67	384 62	31,311 46	128,318 81	2,691 22	79,363 75	210,373 78
Marquette	40,056 50	154,670 50	44,386 17	9,135 36	122,374 87	370,623 40	156,859 06	99,753 45	627,235 91
Mason	8,611 50	54,830 07	30,106 93	307 45	22,515 63	116,371 58	6,834 56	62,428 26	185,634 40
Mecosta	10,205 50	47,824 51	10,705 24	518 40	21,882 05	91,135 70	3,280 92	69,437 07	163,853 69
Menominee	17,282 50	74,036 59	8,455 77	915 94	31,490 04	132,780 84	13,909 05	81,896 46	228,586 35
Midland	7,583 00	33,319 25	43,652 82	82 57	16,194 42	100,832 06	1,386 44	59,842 91	162,061 41
Missaukee	8,142 87	27,135 54	4,545 32	243 86	12,249 39	52,316 98	3,245 90	42,261 86	97,824 74
Monroe	19,416 50	59,675 01	7,195 10	1,013 97	28,301 40	115,601 98	5,699 64	150,658 02	271,959 64
Montcalm	20,525 50	69,535 59	8,899 00	815 34	28,525 84	128,301 27	6,956 20	102,324 49	237,581 96
Montmorency	2,840 00	10,665 00	1,186 64	91 62	6,358 60	21,141 86	336 50	13,921 02	35,399 38
Muskegon	30,852 52	119,305 13	16,017 89	12,953 20	65,935 73	245,064 47	5,665 79	111,936 86	362,667 12
Newaygo	13,614 20	46,298 07	23,218 30	295 97	20,035 38	103,461 92	10,819 07	75,808 56	190,089 55
Oakland	25,180 25	118,303 81	12,840 10	1,939 65	42,359 80	200,623 61	6,499 44	80,406 03	287,528 08
Oceana	11,394 45	47,201 72	8,482 54	376 08	19,262 16	86,716 95	4,355 94	58,588 23	149,661 12
Ogemaw	4,305 00	22,066 75	2,553 51	307 25	8,494 08	37,726 59	1,058 32	45,138 60	83,923 51

Ontonagon	9,970 00	39,360 75	5,768 19	173 42	19,837 42	75,109 78	16,705 00	22,331 09	114,145 87
Osceola	12,135 00	47,867 87	5,038 21	614 78	20,177 26	85,833 12	6,415 10	61,055 05	153,303 27
Oscoda	2,580 00	6,418 00	987 34	7 85	2,698 44	12,691 63	114 00	15,924 19	28,729 82
Otsego	4,390 00	20,020 19	888 43	203 36	11,466 12	36,968 10	5,485 17	29,399 85	71,853 12
Ottawa	31,172 25	95,371 42	21,539 65	1,638 42	75,090 06	224,811 80	10,227 50	134,374 18	369,413 48
Presque Isle	7,365 97	22,611 63	7,548 51	184 57	12,369 31	50,079 99	9,147 34	59,772 28	118,999 61
Roscommon	1,581 00	7,702 01	1,780 32	5 00	3,074 14	14,142 47	623 57	13,016 58	27,782 62
Saginaw	53,379 20	204,524 16	28,024 69	5,773 83	97,442 57	389,144 45	15,658 64	258,421 17	663,224 26
St. Clair	24,645 75	116,013 09	9,306 81	6,580 29	48,201 51	204,747 45	4,139 87	160,145 27	369,032 59
St. Joseph	21,326 53	68,254 26	3,838 32	640 22	26,328 76	120,388 09	16,869 87	35,968 88	173,226 84
Sanilac	40,869 75	58,804 25	18,942 06	630 09	31,010 98	150,257 13	7,396 85	135,795 72	293,449 70
Schoolcraft	6,031 00	29,943 98	19,035 56	486 49	18,076 36	73,573 39	1,235 20	29,214 74	104,023 33
Shiawassee	19,178 88	80,496 90	8,006 05	1,355 85	30,767 37	139,805 05	13,957 00	58,791 57	212,553 62
Tuscola	19,391 75	72,567 27	9,219 83	412 90	28,067 23	129,658 98	12,232 65	126,955 93	268,847 56
Van Buren	24,586 81	80,205 08	10,473 56	865 72	33,312 89	149,444 06	14,191 87	79,538 85	243,174 78
Washtenaw	32,666 12	131,717 65	44,314 53	4,793 26	59,537 15	273,028 71	19,455 29	85,753 13	378,237 13
Wayne	221,431 50	1,291,248 12	358,494 19	35,577 54	670,728 78	2,577,480 13	23,556 68	522,873 30	3,123,910 11
Wexford	12,571 25	57,504 87	7,859 05	308 52	23,785 37	102,029 06	4,046 00	79,137 25	185,212 31

TABLE VII.

Miscellaneous statistics as reported by township clerks for the year ending July 11, 1910.

Counties.	Bonded indebtedness of the districts.	Total indebtedness of the districts.	Amount due the districts.	Amount paid and due members of school boards and inspectors for services.	Amount paid and due township chairmen and other officers for services.
Totals	$5,189,977 81	$5,494,359 97	$456,102 14	$10,965 80	$62,677 39
Alcona	$6,100 00	$6,680 68	$2,424 81	$33 25	$67 75
Alger	32,000 00	32,000 00	8,980 39	629 38	1,224 75
Allegan	28,425 00	29,724 01	2,588 58	27 25	83 00
Alpena	.....	.....	27,064 60	386 00	702 50
Antrim	11,300 00	12,022 13	3,977 62	26 00	42 00
Arenac	11,725 00	13,124 36	1,173 08	25 50	11 25
Baraga	50,000 00	50,000 00	.....	168 00	1,025 00
Barry	4,000 00	4,558 91	633 57	79 50	262 50
Bay	134,599 67	136,944 23	948 97	97 00	926 25
Benzie	13,137 37	13,556 43	10,987 75	24 50	19 00
Berrien	36,038 33	39,291 31	10,584 62	282 50	477 95
Branch	8,200 00	8,990 47	1,145 16	26 50	251 18
Calhoun	26,400 00	61,683 67	8,273 70	20 00	826 27
Cass	13,100 00	13,631 88	2,098 05	34 50	31 75
Charlevoix	81,129 25	86,515 70	4,490 72	9 00	227 50
Cheboygan	81,800 00	82,555 98	12,106 44	92 50	247 00
Chippewa	86,848 87	96,228 87	24,643 56	254 50	1,223 00
Clare	11,650 00	11,878 30	1,093 27	21 75	84 75
Clinton	21,329 92	24,884 31	1,820 59	8 25	177 50
Crawford	2,200 00	2,225 96	2,432 66	5 00	28 50
Delta	127,660 00	138,745 84	7,615 80	371 50	2,478 00
Dickinson	80,250 00	93,300 00	896 81	363 75	2,375 00
Eaton	10,040 00	10,265 60	1,838 57	51 56	449 25
Emmet	37,225 00	40,650 00	13,566 15	37 00	60 20
Genesee	183,630 00	184,858 54	3,081 42	69 00	626 50
Gladwin	35,640 77	36,838 03	952 36	30 00	37 50
Gogebic	153,000 00	155,364 20	40,902 61	241 00	2,850 00
Grand Traverse	2,533 00	22,904 50	6,220 33	21 50	52 00
Gratiot	33,100 00	34,501 28	4,342 22	351 00	208 25
Hillsdale	60,800 00	77,284 70	2,870 62	22 50	243 25
Houghton	203,400 00	213,822 25	52 00	348 00	2,545 00
Huron	50,765 70	5,389 35	1,206 24	51 25	73 50
Ingham	77,550 00	78,890 40	2,898 10	58 25	1,697 99
Ionia	41,700 00	44,575 95	3,436 55	18 50	141 50
Iosco	15,411 21	21,135 60	3,549 69	198 50	332 75
Iron	144,000 00	152,900 00	53 09	546 00	1,200 00
Isabella	31,428 63	31,744 02	7,291 74	32 50	256 75
Jackson	130,960 00	132,257 87	7,919 13	30 00	1,096 25
Kalamazoo	294,300 00	311,610 96	3,025 15	40 00	1,826 82
Kalkaska	4,650 00	4,203 80	2,591 25	28 75	46 60
Kent	567,192 00	569,417 20	4,870 67	82 75	2,583 78
Keweenaw	.....	.....	.....	260 00	445 00
Lake	8,089 00	8,924 21	7,078 09	7 50	28 50
Lapeer	11,200 00	12,124 78	3,292 79	3 00	121 25
Leelanau	1,440 00	3,264 20	4,359 34	67 50	73 50
Lenawee	132,650 00	134,156 40	3,093 31	311 00	381 75
Livingston	2,000 00	2,612 78	2,083 45	70 00	51 00
Luce	30,000 00	30,000 00	45 50	415 50	850 00
Mackinac	12,900 00	12,900 00	2,076 90	553 00	1,752 00
Macomb	47,720 00	49,051 38	15 77	6 00	378 00
Manistee	11,450 00	13,411 82	12,234 37	52 75	254 50
Marquette	274,000 00	299,227 28	1,377 77	486 00	3,968 00
Mason	36,150 00	38,536 20	6,675 07	45 00	348 50
Mecosta	7,260 00	7,839 80	7,006 51	15 00	177 00
Menominee	10,860 00	14,158 88	2,813 22	235 00	1,632 00

TABLE VII.—*Concluded.*

Counties.	Bonded indebtedness of the districts.	Total indebtedness of the districts.	Amount due the districts.	Amount paid and due members of school boards and inspectors for services.	Amount paid and due township chairmen and other officers for services.
Midland	$42,494 00	$42,369 11	$2,107 68	$45 25	$78 75
Missaukee	13,468 59	14,441 29	4,098 05	80 12	45 87
Monroe	72,240 00	77,208 29	950 79	29 00	94 50
Montcalm	43,780 00	46,683 55	10,157 12	49 50	184 00
Montmorency	1,000 00	1,095 45	.....	201 00	303 00
Muskegon	167,100 00	169,351 63	13,549 98	176 00	78 50
Newaygo	24,897 00	25,306 18	3,869 73	88 40	54 00
Oakland	79,525 00	82,151 24	4,616 03	47 50	254 00
Oceana	8,742 00	10,285 26	2,218 24	53 98	59 98
Ogemaw	5,500 00	5,575 00	3,793 44	53 25	83 50
Ontonagon	12,800 00	15,200 00	8,522 87	661 00	1,915 00
Osceola	6,412 50	7,008 59	3,166 50	17 00	73 25
Oscoda	200 00	200 00	3,061 11	43 00	64 75
Otsego	9,550 00	10,650 00	634 63	79 00	73 00
Ottawa	112,289 48	113,482 33	1,107 60	80 75	350 75
Presque Isle	12,134 00	17,218 55	1,584 34	173 00	161 75
Roscommon	4,150 00	5,060 43	578 68	16 00	18 00
Saginaw	83,538 88	85,629 37	32,478 01	566 75	3,042 50
St. Clair	31,590 38	32,543 62	1,356 28	49 00	212 00
St. Joseph	41,930 00	42,880 90	176 33	27 35	298 00
Sanilac	58,321 57	60,656 70	3,666 37	16 50	111 50
Schoolcraft	7,000 00	8,009 99	12,999 57	272 00	1,430 00
Shiawassee	39,300 00	43,807 16	4,149 86	4 51	378 00
Tuscola	19,600 00	23,759 47	6,726 78	148 75	95 25
Van Buren	25,480 00	26,125 06	10,390 32	41 50	82 25
Washtenaw	252,000 00	255,707 58	1,243 40	22 00	1,737 50
Wayne	447,875 80	474,252 78	16,943 90	41 00	11,773 50
Wexford	35,529 89	36,062 42	3,163 80	111 25	43 00

TABLE VIII.

Cost per capita of public schools of the State for the year ending July 11, 1910.

Counties.	Number of pupils included in school census in—		Number of pupils enrolled in—		Cost per capita for instruction based on school census in—			Cost per capita for instruction based on enrollment in—			Total expense per capita during year based on enrollment in—		
	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	All school districts.	Graded school districts.	Ungraded school districts.	Al. school districts.	Graded school districts.	Ungraded school districts.	All school districts.
Totals	465,989	305,482	327,213	214,288	$9 15	$12 82	$11 37	$18 26	$13 04	$16 19	$32 46	$18 53	$26 95
Alcona	178	1,761	154	1,261	$10 99	$8 51	$8 74	$12 31	$11 93	$11 98	$14 28	$18 22	$17 78
Alger	1,360	646	1,212	451	17 56	18 26	17 76	19 71	22 10	20 36	36 02	42 37	37 75
Allegan	3,730	7,969	2,935	5,603	12 37	8 53	9 73	15 61	12 12	13 33	32 12	16 53	21 89
Alpena	4,482	2,139	2,499	1,333	8 29	8 72	8 43	14 87	13 99	14 56	25 07	17 93	22 04
Antrim	1,832	2,671	1,828	2,046	17 39	9 72	12 84	17 43	12 69	14 95	26 36	17 83	21 91
Arenac	1,426	2,045	1,217	1,395	8 97	7 55	8 13	10 51	11 07	10 81	16 88	18 09	17 53
Baraga	1,688	379	1,130	264	11 61	11 25	11 54	17 34	16 15	17 11	48 55	61 59	51 02
Barry	1,621	4,186	1,571	3,035	21 58	10 77	13 79	22 27	14 86	17 39	30 80	18 34	22 59
Bay	14,196	7,333	6,956	4,242	9 67	5 91	8 39	19 74	10 22	16 13	29 31	17 35	24 78
Benzie	1,751	1,650	1,568	1,375	11 37	10 54	10 97	12 71	12 65	12 68	20 10	16 68	18 50
Berrien	8,205	6,476	6,306	4,267	12 82	8 54	10 94	16 69	12 97	15 19	25 29	17 69	22 23
Branch	2,260	4,038	1,878	2,898	17 79	11 39	13 69	21 41	15 87	18 05	31 21	21 78	25 49
Calhoun	8,714	4,549	6,902	3,224	14 79	11 18	13 55	18 67	15 77	17 75	43 26	20 36	35 97
Cass	1,935	3,013	1,686	2,189	15 89	13 10	14 19	18 24	18 03	18 12	26 26	22 61	23 46
Charlevoix	3,381	2,831	2,576	1,910	11 78	9 59	10 84	15 46	12 71	14 29	39 62	18 22	30 51
Cheboygan	3,214	2,832	2,258	2,015	10 17	8 80	9 53	14 48	12 37	13 48	24 28	19 30	21 93
Chippewa	4,461	2,966	3,350	2,170	12 07	9 09	10 88	16 07	12 43	14 64	26 60	19 72	23 89
Clare	989	2,141	860	1,655	11 77	9 87	10 47	13 54	12 77	13 03	19 29	18 90	19 04
Clinton	1,662	4,556	1,600	2,790	18 89	9 61	12 09	19 62	15 70	17 13	28 99	20 06	23 31
Crawford	602	539	481	444	10 44	15 22	12 70	13 08	18 47	15 66	21 44	27 63	24 41
Delta	6,151	3,523	4,545	2,471	10 21	8 52	9 60	13 82	12 15	13 23	21 87	20 89	21 53
Dickinson	5,115	1,928	3,961	1,509	12 94	13 52	13 10	16 72	17 28	16 87	31 87	33 30	33 65
Eaton	3,216	3,977	2,828	2,998	17 00	11 65	14 04	19 33	15 46	17 34	29 77	19 71	24 60
Emmet	3,031	2,577	2,278	1,809	12 21	9 05	10 76	16 25	12 90	14 77	23 69	17 64	21 01
Genesee	8,699	4,725	6,468	3,914	11 04	10 84	10 97	14 86	13 09	14 19	25 82	16 74	22 39
Gladwin	576	2,370	508	1,651	11 12	7 57	8 26	12 61	10 87	11 28	22 09	15 63	17 15
Gogebic	6,190	1,149	4,436	833	13 37	13 09	13 33	18 66	18 05	18 57	41 32	48 81	42 47
Grand Traverse	3,103	3,176	2,625	2,362	13 29	8 64	10 94	15 71	11 62	13 77	24 62	15 65	20 37
Gratiot	2,763	5,491	2,542	4,167	15 37	8 16	10 57	16 71	10 75	13 01	27 37	14 19	19 18
Hillsdale	3,018	4,601	2,684	3,334	15 85	11 35	13 13	17 82	15 66	16 62	26 58	20 31	23 10
Houghton	22,943	4,306	16,522	3,034	14 59	11 08	14 03	20 26	15 73	19 56	38 76	27 00	36 93
Huron	4,482	7,415	3,291	4,955	9 86	6 66	7 86	13 43	9 96	11 35	19 08	13 55	15 78
Ingham	7,956	3,603	6,588	2,435	12 41	11 19	12 03	14 99	16 56	15 41	37 87	20 83	33 27
Ionia	3,865	4,095	3,004	2,858	15 28	10 85	13 00	19 67	15 54	17 66	31 01	20 05	25 67
Iosco	2,195	1,239	1,696	857	10 29	6 80	9 03	13 32	9 83	12 15	19 26	16 78	18 43
Iron	3,655	350	2,854	253	15 66	12 98	15 42	20 05	17 96	19 88	43 98	35 09	43 25
Isabella	1,538	5,235	948	3,756	11 57	7 97	8 79	18 77	11 10	12 65	35 80	15 96	19 96
Jackson	7,975	4,413	5,232	3,037	12 84	10 95	12 17	19 57	15 91	18 22	30 68	20 98	27 12
Kalamazoo	10,079	3,772	7,406	2,688	15 03	13 22	14 54	20 46	18 55	19 95	37 52	23 79	33 86
Kalkaska	696	1,669	677	1,371	11 13	11 98	11 72	11 44	14 57	13 54	19 77	18 18	18 70
Kent	33,813	8,690	19,371	6,111	13 51	8 42	12 47	23 58	11 97	20 80	52 41	18 69	44 22
Keweenaw	.....	2,079	.....	1,588	.....	11 57	11 57	.....	15 15	15 15	.....	24 85	24 85
Lake	510	1,110	423	788	9 76	11 01	10 62	11 77	15 51	14 20	34 07	21 77	26 07
Lapeer	2,095	4,792	1,818	3,580	15 91	8 99	11 09	18 34	12 03	14 15	26 09	15 26	18 91
Leelanau	635	2,872	499	1,911	11 76	8 29	8 91	14 96	12 46	12 97	36 47	16 56	18 61
Lenawee	5,152	6,631	4,011	4,771	14 79	11 06	12 69	18 99	15 38	17 03	31 64	20 27	25 46
Livingston	1,060	3,413	967	2,509	18 20	11 71	13 25	19 95	15 92	17 04	26 70	20 81	22 44
Luce	569	398	525	310	18 91	15 67	17 58	20 49	20 12	20 30	46 41	36 87	42 87
Mackinac	809	1,874	570	1,371	13 70	11 83	12 40	19 45	16 18	17 14	29 94	25 64	26 90
Macomb	4,587	5,010	2,947	3,047	11 95	7 64	9 70	18 60	12 57	15 54	38 51	15 92	27 04

TABLE VIII.—*Concluded.*

Counties.	Number of pupils included in school census in—		Number of pupils enrolled in—		Cost per capita for instruction based on school census in—			Cost per capita for instruction based on enrollment in—			Total expense per capita during year based on enrollment in—		
	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	Graded school districts.	Ungraded school districts.	All school districts.	Graded school districts.	Ungraded school districts.	All school districts.	Graded school districts.	Ungraded school districts.	All school districts.
Manistee	4,690	4,353	2,717	2,870	$11 44	$7 34	$9 46	$19 71	$11 14	$15 31	$29 29	$16 97	$22 96
Marquette	12,850	1,831	8,992	1,298	13 38	12 39	13 26	19 13	17 49	18 92	37 03	29 01	36 02
Mason	3,280	3,727	2,060	2,665	10 74	7 56	9 05	17 11	10 57	13 42	26 77	15 24	24 63
Mecosta	1,927	4,048	1,529	3,090	12 15	8 54	9 71	15 32	11 19	12 56	27 81	15 73	19 73
Menominee	5,654	4,033	3,984	2,727	10 66	7 83	9 49	15 14	11 59	13 69	21 74	16 92	19 78
Midland	1,095	3,599	1,113	2,645	12 54	7 55	8 71	12 34	10 27	10 88	56 06	14 53	26 83
Missaukee	1,194	2,531	1,161	1,899	11 43	8 54	9 47	11 75	11 39	11 52	16 77	17 29	17 09
Monroe	2,581	7,086	1,420	4,839	9 49	7 70	8 18	17 26	11 27	12 63	28 65	15 48	18 46
Montcalm	3,282	6,011	2,677	4,289	12 67	8 06	9 69	15 54	11 29	12 93	23 99	14 94	18 42
Montmorency	555	638	462	440	10 99	11 60	11 32	13 20	16 83	14 97	18 72	28 39	23 44
Muskegon	8,274	3,588	6,228	2,462	14 59	8 18	12 66	19 39	11 92	17 28	32 42	17 51	28 20
Newaygo	1,550	4,546	1,361	3,372	11 66	9 20	9 82	13 28	12 40	12 66	33 82	17 03	21 86
Oakland	5,879	5,509	4,852	3,755	14 09	11 01	12 59	17 07	16 15	16 67	25 54	20 43	23 31
Oceana	1,346	4,402	1,188	3,221	15 37	8 61	10 19	17 42	11 77	13 29	25 31	17 58	19 67
Ogemaw	1,165	1,878	1,093	1,365	8 62	8 69	8 66	9 10	11 96	10 72	14 06	16 38	15 35
Ontonagon	1,638	1,017	1,352	884	19 19	17 58	18 58	23 25	20 23	22 06	32 17	35 75	33 59
Osceola	1,780	3,862	1,486	2,842	14 93	8 65	10 63	17 88	11 75	13 86	29 88	14 57	19 83
Oscoda	.....	677	.....	547	.....	13 29	13 29	.....	16 45	16 45	.....	23 20	23 20
Otsego	782	1,489	606	1,005	12 83	9 65	10 75	16 56	14 30	15 15	24 83	21 81	22 94
Ottawa	7,867	5,947	5,856	4,127	10 27	7 69	9 16	13 80	11 08	12 67	27 37	15 63	23 52
Presque Isle	1,431	2,347	1,257	1,292	10 08	6 62	7 93	11 48	12 03	11 76	18 41	20 85	19 64
Roscommon	117	558	104	436	17 30	13 00	13 75	19 45	16 65	17 19	26 89	26 02	15 82
Saginaw	16,078	10,335	9,310	6,197	11 77	6 64	9 76	20 33	11 07	16 63	31 41	15 59	25 09
St. Clair	7,996	6,826	5,111	4,893	10 60	8 18	9 49	16 58	11 42	14 06	25 55	15 15	20 46
St. Joseph	3,093	2,935	2,805	2,169	16 89	12 72	14 86	18 62	17 20	18 01	26 08	21 76	24 20
Sanilac	3,107	7,833	2,649	6,107	12 03	7 95	9 11	14 11	10 19	11 38	21 85	15 12	17 16
Schoolcraft	1,469	1,160	997	897	13 72	13 64	13 68	20 21	17 63	18 99	41 91	35 43	38 84
Shiawassee	4,198	3,975	3,430	2,853	14 09	10 19	12 17	17 26	14 19	15 86	25 36	18 51	22 25
Tuscola	3,076	7,137	2,482	4,776	13 54	7 05	9 00	16 78	10 53	12 67	23 03	15 18	17 86
Van Buren	3,936	5,067	3,276	3,639	14 51	9 40	11 64	17 44	13 09	15 15	25 85	17 79	21 61
Washtenaw	6,664	4,761	4,603	3,040	16 93	10 83	14 39	24 51	16 96	21 50	44 96	21 73	35 72
Wayne	119,852	8,204	77,057	4,737	12 14	6 94	11 81	18 89	12 01	18 49	32 33	18 13	31 51
Wexford	3,430	2,769	2,804	2,065	12 53	9 77	11 30	15 33	13 11	14 39	20 81	21 15	20 95

TABLE IX.

Statistics of township and district libraries as reported by school inspectors for the year ending July 11, 1910.

Counties.	Number of townships forfeiting library money.	Number of townships maintaining libraries.	Number of volumes added to township libraries during the year.	Whole number of volumes in township libraries.	Amount of taxes voted for township libraries.	Amount of fines, etc., received from county treasurer for township libraries.	Amount paid for books and care of township libraries.	Amount of township library money on hand July 11, 1910.	Number of districts maintaining libraries.	Number of volumes added to district libraries during the year.	Whole number of volumes in district libraries.	Amount paid for the support of district libraries.	Amount of fines, etc., received from county treasurer for district libraries.
Totals	1,057	271	16,190	218,135	$7,709 33	$12,996 81	$23,041 69	$31,591 11	5,802	102,968	1,458,748	$163,721 74	$202,011 08
Alcona	7	4		419		$4 41	$29 50	$139 27	16	87	1,113	$38 16	$196 84
Alger		8	645	4,992	$100 00	266 59	518 24	488 04	8	705	4,955	518 24	347 19
Allegan	18	6	558	6,520	100 00	337 45	701 35	727 09	145	1,872	19,499	1,270 39	1,976 54
Alpena	6	1		300		182 37	10 00	382 82	5	250	5,250	710 34	193 05
Antrim	7	8	311	4,685	350 00	167 17	878 23	919 41	39	679	5,775	326 46	544 78
Arenac	11								31	512	4,459	300 43	437 60
Baraga	3	2	6	226		54 98	56 98	183 39	5	31	1,569	141 98	148 15
Barry	15	2	10	1,396		18 76	58 05	65 03	124	1,222	16,664	775 41	418 26
Bay	10	5	139	3,880		127 51	212 00	460 06	57	3,761	74,943	795 53	186 25
Benzie	6	6	292	2,054		273 39	291 16	435 47	43	610	6,918	355 42	468 34
Berrien	21	2	162	3,300	150 00	11 20	253 09	36 75	142	1,891	27,670	1,214 80	1,268 55
Branch	14	3	57	2,437		106 90	131 25	419 84	113	1,310	13,777	957 35	952 21
Calhoun	21	2	108	1,270		6 64	137 79	62 93	145	3,630	40,490	4,544 13	1,615 93
Cass	11	5	890	5,232	1,469 35	63 52	1,525 70	769 30	83	577	10,089	369 03	603 07
Charlevoix	12	3	16	852		27 27	44 00	32 12	42	652	8,365	840 21	813 40
Cheboygan	17	2	140	882	269 22	155 99	158 32	371 59	51	862	12,667	1,604 40	3,438 15
Chippewa	15		386	2,406		205 48	466 01	392 06	34	1,067	8,008	728 99	603 11
Clare	16	2		627		10 00	15 00	16 26	35	223	2,955	78 37	54 71
Clinton	14	3	40	863		61 43	54 07	76 73	108	974	10,298	523 88	428 58
Crawford	2	3	112	1,841		48 41	200 73	232 71	12	80	1,744	27 22	11 43
Delta	14	1	6	2,909	7 52	198 78	33 24	578 78	16	532	5,246	394 27	795 70
Dickinson	9		258	4,629		186 33	65 27	222 14	9	972	17,856	4,492 88	902 24
Eaton	14	4	294	4,796	25 00	59 30	511 84	399 41	127	1,245	18,820	760 69	580 09
Emmet	9	7	62	1,678	100 00	74 15	99 40	321 08	58	1,046	7,964	796 51	719 17
Genesee	19	1		1,200		24 20	20 00	38 70	146	2,207	27,290	4,392 07	1,656 79

Gladwin	12	2	10	592	10 00	23 26	24 92	9 26	37	324	3,166	168 19	399 17
Gogebic	8	.....	15	1,000	100 00	85 02	49 86	95 01	5	76	3,780	624 08	758 15
Grand Traverse	5	9	211	5,008	.....	207 74	157 81	557 73	39	651	5,343	475 99	282 10
Gratiot	17	1	.....	.....	.....	.....	.....	27 07	131	1,230	19,226	689 32	917 04
Hillsdale	18	1	.....	500	.....	13 07	24 00	25 27	148	1,040	14,970	603 37	920 46
Houghton	9	6	4,406	38,801	2,500 00	3,457 65	6,032 65	1,562 19	14	3,094	32,735	8,008 69	7,350 54
Huron	22	5	159	2,020	25 00	169 00	142 32	419 39	93	897	9,946	355 97	1,858 76
Ingham	23	.....	.....	.....	.....	.....	.....	.....	130	3,032	33,834	7,976 18	4,096 39
Ionia	18	.....	242	2,306	1,000 00	86 55	973 26	349 06	127	771	12,362	742 58	1,119 91
Iosco	9	4	169	2,021	.....	61 08	116 65	202 27	21	190	3,455	268 07	168 36
Iron	7	.....	430	5,543	150 00	1,179 38	981 90	646 89	7	726	7,306	1,125 64	1,526 90
Isabella	16	1	.....	127	.....	17 49	5 00	47 69	91	703	8,542	444 22	1,397 24
Jackson	20	.....	.....	.....	.....	.....	.....	.....	145	2,430	24,480	2,383 62	3,524 07
Kalamazoo	25	3	52	1,748	22 24	1 28	75 00	71 79	142	2,541	55,351	9,996 40	2,150 39
Kalkaska	10	1	.....	300	.....	6 97	6 50	66 21	41	921	4,279	572 18	855 79
Kent	21	4	20	2,136	.....	5 83	114 00	117 10	190	2,203	32,919	1,863 46	1,312 55
Keweenaw	4	1	498	4,740	.....	396 78	455 49	960 61	5	548	4,980	515 65	431 43
Lake	4	8	100	3,036	.....	175 86	163 00	271 61	11	235	992	18 55	38 05
Lapeer	18	1	8	138	.....	13 02	13 02	.....	125	1,506	17,080	505 56	1,134 13
Leelanau	2	9	2	2,860	25 00	35 01	139 00	469 08	32	156	3,186	28 50	76 17
Lenawee	23	1	.....	200	.....	41 28	.....	.....	174	2,577	49,268	4,987 37	5,965 96
Livingston	14	2	.....	420	.....	40 41	10 00	94 14	67	449	7,345	312 03	610 96
Luce	4	.....	296	1,622	.....	254 10	283 40	289 62	4	296	1,934	283 40	283 00
Mackinac	14	.....	310	1,619	50 00	160 00	227 34	248 78	10	839	3,374	332 04	339 78
Macomb	13	2	.....	628	.....	14 49	10 00	149 35	87	1,977	20,884	3,850 13	1,644 72
Manistee	10	4	114	1,604	.....	116 03	153 64	244 74	48	750	7,918	384 62	523 53
Marquette	21	.....	361	8,971	425 00	370 86	838 02	1,522 07	19	1,800	36,238	9,135 36	9,115 28
Mason	13	3	246	2,334	.....	119 93	175 77	96 64	43	486	6,915	307 45	344 76
Mecosta	15	2	24	619	.....	40 44	47 00	30 44	87	789	8,839	518 40	327 60
Menominee	10	1	410	1,770	.....	242 36	312 60	7,399 01	35	677	8,235	915 94	507 76
Midland	14	3	.....	172	.....	35 10	12 00	3 52	37	172	2,200	82 57	204 13
Missaukee	9	5	.....	927	.....	117 96	27 50	181 89	29	203	3,635	243 86	176 00
Monroe	13	3	106	943	.....	119 42	77 01	100 40	137	2,032	32,821	1,013 97	3,214 49
Montcalm	19	3	245	1,757	.....	101 25	163 64	144 33	108	881	14,178	815 34	854 14
Montmorency	3	4	241	905	.....	91 13	123 80	99 20	5	150	750	91 62	135 45
Muskegon	6	14	39	5,476	50 00	197 41	246 05	914 01	63	3,016	50,631	12,953 20	893 87
Newaygo	17	5	15	422	626 00	.....	70 50	192 47	104	866	11,194	295 97	455 95
Oakland	22	4	266	4,312	.....	238 23	263 05	120 25	138	1,871	22,290	1,939 65	2,300 21
Oceana	3	13	520	6,368	50 00	196 29	492 46	719 29	11	1,052	6,672	376 08	870 53
Ogemaw	11	2	121	2,335	.....	41 68	53 20	39 94	28	365	3,772	307 25	156 45
Ontonagon	10	.....	280	2,616	.....	132 20	173 42	176 96	5	280	3,393	173 42	232 20
Osceola	11	5	164	2,450	.....	193 16	350 74	453 12	61	1,107	8,878	614 78	469 82
Oscoda	2	2	45	556	50 00	24 39	52 73	223 06	2	14	124	7 85	21 96
Otsego	6	3	241	3,612	.....	255 14	287 06	896 49	23	360	3,025	203 36	490 23
Ottawa	10	7	66	4,105	.....	215 98	137 24	341 98	86	1,142	16,644	1,638 42	977 78

TABLE IX.—*Concluded.*

Counties.	Number of townships forfeiting library money.	Number of townships maintaining libraries.	Number of volumes added to township libraries during the year.	Whole number of volumes in township libraries.	Amount of taxes voted for township libraries.	Amount of fines, etc., received from county treasurer for township libraries.	Amount paid for books and care of township libraries.	Amount of township library money on hand July 11, 1910.	Number of districts maintaining libraries.	Number of volumes added to district libraries during the year.	Whole number of volumes in district libraries.	Amount paid for the support of district libraries.	Amount of fines, etc., received from county treasurer for district libraries.
Presque Isle	14	.....	95	95	.....	.....	.....	$26 90	14	331	1,735	$184 57	$296 41
Roscommon	6	2	.....	800	$25 00	$25 88	$35 00	43 11	9	13	538	5 00	58 19
Saginaw	19	10	180	6,570	.....	222 68	351 96	729 48	102	2,744	43,374	5,773 83	2,268 17
St. Clair	26	.....	.....	800	.....	.....	5 00	.....	151	2,247	27,557	6,580 29	2,431 41
St. Joseph	16	2	252	6,151	.....	64 03	1,278 59	859 54	218	1,048	15,214	640 22	896 16
Sanilac	19	9	34	2,857	.....	35 82	67 10	260 27	98	784	9,015	630 09	725 82
Schoolcraft	10	.....	298	1,411	25 00	293 33	200 94	487 53	9	378	3,449	486 49	907 21
Shiawassee	17	1	.....	.....	.....	.....	.....	.....	118	2,048	15,308	1,355 85	2,131 98
Tuscola	14	9	.....	3,107	5 00	168 43	110 22	362 74	87	697	10,644	412 90	578 67
Van Buren	14	3	134	2,478	.....	43 85	188 22	76 75	145	1,292	22,800	865 72	1,023 24
Washtenaw	21	1	.....	492	.....	3 72	23 72	3 72	132	2,948	36,813	4,793 26	897 28
Wayne	20	2	45	1,200	.....	7 21	51 32	158 19	137	12,886	283,184	35,577 54	108,412 82
Wexford	9	8	228	3,161	.....	65 40	195 85	231 97	43	1,130	6,244	308 52	569 43

TABLE X.

Branches of instruction as reported by township clerks for the year ending July 11, 1910.

Counties.	Number of districts in which instruction is given in—												
	Algebra.	Arithmetic.	Civil government.	Geography.	Grammar.	Orthography.	Penmanship.	Physiology.	Reading.	U. S. history.	Agriculture.	Domestic science.	Music.
Totals	1,495	7,102	6,180	7,084	7,032	5,272	5,472	6,980	7,100	6,910	391	280	441
Alcona	7	34	26	34	37	15	20	37	37	36	1	.....	.....
Alger	5	8	6	8	8	6	7	7	8	8	3	2	2
Allegan	17	178	172	181	183	166	148	181	181	178	.....	.....	3
Alpena	2	9	16	18	18	14	14	18	18	18	.....	.....	.....
Antrim	14	69	55	69	68	42	51	66	67	69	2	2	5
Arenac	11	41	30	42	40	27	30	38	42	42	1	.....	.....
Baraga	4	5	5	5	5	5	3	5	5	5	1	1	.....
Barry	46	137	130	140	138	95	94	136	139	138	19	16	16
Bay	22	69	64	70	70	42	63	70	70	70	8	5	8
Benzie	8	47	45	50	52	43	30	52	53	50	1	.....	1
Berrien	32	143	123	144	144	133	112	140	143	137	2	2	7
Branch	15	126	117	126	121	91	75	126	127	124	4	.....	.....
Calhoun	40	158	147	157	159	132	141	154	157	153	14	13	18
Cass	14	111	80	109	106	59	99	107	109	101	1	.....	4
Charlevoix	10	69	42	66	65	45	40	63	67	62	1	1	4
Cheboygan	10	56	49	56	56	52	48	55	57	56	3	3	4
Chippewa	6	54	34	53	51	29	43	53	53	51	.....	.....	1
Clare	9	67	49	65	65	57	53	64	65	65	.....	.....	1
Clinton	13	127	113	127	121	77	85	123	126	126	1	.....	1
Crawford	6	23	12	21	21	14	15	22	24	19	.....	.....	.....
Delta	7	21	20	21	21	19	20	21	21	21	.....	.....	.....
Dickinson	6	8	8	8	8	8	8	8	8	8	.....	.....	.....
Eaton	25	140	131	141	141	133	120	139	140	135	9	1	4
Emmet	11	71	53	67	72	42	59	72	72	65	2	1	1
Genesee	27	156	136	154	156	146	135	144	155	154	9	9	12
Gladwin	4	55	44	54	52	45	40	52	53	52	7	6	9
Gogebic	4	8	7	8	8	8	8	8	8	8	.....	1	2
Grand Traverse	13	63	59	65	67	49	46	52	64	61	3	1	4
Gratiot	20	132	127	132	130	107	81	132	131	132	3	2	6
Hillsdale	23	159	132	154	152	85	117	153	156	151	16	12	12
Houghton	19	32	26	33	33	23	30	33	33	32	2	3	9
Huron	30	120	114	121	119	94	90	122	122	120	8	7	9
Ingham	17	128	114	127	128	106	101	126	126	120	1	.....	3
Ionia	20	139	115	140	137	82	102	136	139	138	2	.....	4
Iosco	10	31	28	30	33	25	25	30	31	31	1	1	2
Iron	5	7	7	7	7	5	6	7	7	7	.....	1	2
Isabella	11	101	93	104	99	83	82	101	105	101	10	3	3
Jackson	29	146	133	151	151	129	145	147	151	141	2	2	5
Kalamazoo	35	127	101	123	122	76	97	121	124	124	7	1	4
Kalkaska	9	46	43	49	48	37	36	49	49	48	5	5	6
Kent	74	199	194	202	201	185	186	197	198	195	25	23	26
Keweenaw	2	5	4	5	5	5	5	5	5	5	.....	.....	1
Lake	12	45	33	42	46	32	32	42	46	41	2	1	1
Lapeer	23	132	118	131	129	122	94	128	130	124	4	2	4
Leelanau	16	55	49	58	58	44	38	58	58	52	13	4	5
Lenawee	41	189	166	191	188	112	148	184	186	185	4	.....	5
Livingston	46	127	117	128	123	104	108	122	123	118	10	10	13
Luce	4	4	4	4	4	4	4	4	4	4	.....	.....	.....
Mackinac	3	14	14	14	14	13	13	14	14	14	.....	.....	.....
Macomb	32	109	92	109	107	83	82	110	110	106	8	7	9

TABLE X.—*Concluded.*

Counties.	Number of districts in which instruction is given in—												
	Algebra.	Arithmetic.	Civil government.	Geography.	Grammar.	Orthography.	Penmanship.	Physiology.	Reading.	U. S. history.	Agriculture.	Domestic science.	Music.
Manistee	15	66	55	64	65	48	46	66	65	66	3	1	7
Marquette	10	21	21	21	21	21	21	21	21	21	1	.....	6
Mason	12	66	54	65	62	49	38	63	65	63	4	1	4
Mecosta	14	108	95	102	101	81	66	105	106	102	14	7	7
Menominee	10	40	33	39	37	23	30	39	39	37	1	.....	1
Midland	21	78	74	77	74	62	55	75	75	74	12	11	10
Missaukee	16	63	48	60	61	39	30	58	62	52	.....	.....	1
Monroe	21	136	124	136	136	119	104	135	139	138	8	7	8
Montcalm	40	142	122	141	141	85	106	134	140	139	19	18	20
Montmorency	5	9	9	9	9	9	9	9	9	9	2	2	2
Muskegon	27	87	77	87	87	76	60	83	88	84	9	9	11
Newaygo	17	120	100	118	113	56	50	112	119	115	3	.....	1
Oakland	36	188	137	188	183	97	154	183	192	185	4	2	5
Oceana	17	94	78	90	86	56	60	90	93	88	6	4	7
Ogemaw	9	50	39	48	48	28	25	47	48	47	3	1	1
Ontonagon	7	9	8	9	9	8	9	9	9	9	.....	1	3
Osceola	11	90	73	90	89	60	74	89	90	85	.....	2	4
Oscoda	.....	18	11	18	17	13	13	15	18	18	6	6	7
Otsego	12	37	30	37	35	30	24	35	33	35	8	8	10
Ottawa	31	121	112	115	121	82	85	115	120	118	4	2	3
Presque Isle	4	32	19	31	31	17	21	31	33	32	3	2	3
Roscommon	5	21	14	22	21	18	20	21	21	18	1	.....	.....
Saginaw	58	161	156	163	161	143	118	163	162	159	22	21	27
St. Clair	23	156	142	156	156	144	149	155	155	152	2	1	3
St. Joseph	17	120	103	120	120	94	115	120	117	117	5	3	8
Sanilac	56	148	143	148	152	146	146	150	150	148	10	6	7
Schoolcraft	4	10	10	10	9	8	8	10	10	10	2	1	2
Shiawassee	16	123	105	121	121	57	108	123	122	119	2	3	4
Tuscola	32	148	131	148	148	88	123	147	147	146	10	6	8
Van Buren	20	149	138	148	146	113	91	148	148	145	4	.....	2
Washtenaw	16	162	128	162	160	84	116	156	162	157	3	.....	6
Wayne	27	149	125	148	146	99	109	149	147	144	2	2	11
Wexford	17	80	69	79	79	69	60	80	78	77	5	5	6

TABLE XI.

Private or parochial schools for the year ending July 11, 1910.

Counties.	Number of private schools.	Number of parochial schools.	Number of teachers.		Estimated number of pupils.	Counties.	Number of private schools.	Number of parochial schools.	Number of teachers.		Estimated number of pupils.
			Men.	Women.					Men.	Women.	
Totals	46	415	342	1,050	61,539	Kent	7	28	15	38	6,425
						Keweenaw					
						Lake					
						Lapeer					
Alcona						Leelanau		4	1	8	285
Alger											
Allegan		5	3	7	170	Lenawee		8	4		393
Alpena		6	3	16	1,000	Livingston					
Antrim						Luce					
						Mackinac		2	1	3	120
Arenac		2	2		37	Macomb		12	12	12	1,010
Baraga											
Barry		2		1	20	Manistee	2	11	7	23	1,450
Bay	1	26	26	55	4,822	Marquette	1	3		26	1,250
Benzie						Mason		7	5	12	630
						Mecosta		4	3	7	225
Berrien	4	7	9	23	890	Menominee		4	1	25	625
Branch		1		4	250						
Calhoun	1	4		4	469	Midland	1		1		15
Cass		1		1	13	Missaukee		4	1	3	88
Charlevoix		2		7	169	Monroe	2	15	11	15	805
						Montcalm		2	5		90
Cheboygan		4	1	9	400	Montmorency		1	1		45
Chippewa	1	3	1	8	385						
Clare						Muskegon	1	7	3	25	650
Clinton		4	1	11	520	Newaygo		1			1
Crawford						Oakland		4	5	7	375
						Oceana		1	1	2	110
Delta		3		15	812	Ogemaw					
Dickinson		5	3	8	336						
Eaton		1		1	15	Ontonagon					
Emmet		1		5	225	Osceola		2	1	1	99
Genesee	1	1		5	240	Oscoda					
						Otsego	1				
Gladwin						Ottawa	1	7	7	25	833
Gogebic		2		12	660						
Grand Traverse		3	14	3	540	Presque Isle		8	6	4	385
Gratiot		1		1	6	Roscommon					
Hillsdale		1	1	8	219	Saginaw	8	31	19	32	1,586
						St. Clair	2	13	7	26	1,270
Houghton		12	9	57	2,727	St. Joseph		2	2		27
Huron		12	12	3	711						
Ingham		4	2	17	535	Sanilac		2	2		27
Ionia		3	1	8	330	Schoolcraft		1		5	225
Iosco		2	3		125	Shiawassee					
						Tuscola	1	8	7	2	282
Iron											
Isabella		2		12	410	Van Buren		2	2		30
Jackson		1	2	5	150	Washtenaw	1	17	12	12	698
Kalamazoo		4	5	21	1,200	Wayne	10	77	101	409	23,021
Kalkaska						Wexford		2	1	1	78

TABLE XII.

Examination and certification of teachers as reported by

Counties.	Number of public examinations held.	Number of applicants for regular certificates.	Number of applicants for special certificates.	Number of applicants receiving certificates.					Number licensed without experience in teaching.	Number of applicants having received normal school instruction.	Number of applicants having attended institute during year.	Number of teachers holding state certificates.
				County first grade.	Indorsed first grade.	Second grade.	Third grade.	Special.				
Totals	218	9,159	770	46	29	1,945	3,321	634	1,677	1,762	3,207	850
Alcona	2	45	2	3	1	11	14	2	11	.....	25	4
Alger	2	29	9	.....	.....	5	6	8	6	5	11	1
Allegan	3	178	9	.....	.....	40	44	9	17	26	50	8
Alpena	3	110	1	.....	.....	19	47	1	26	3	30	.....
Antrim	2	33	5	.....	.....	11	13	5	7	7	18	6
Arenac	3	41	1	2	.....	8	12	1	7	4	14	3
Baraga	2	36	3	.....	.....	3	16	2	3	14	14	2
Barry	2	80	4	1	.....	19	24	4	14	10	38	2
Bay	3	136	1	.....	.....	23	44	1	25	15	50	1
Benzie	3	51	20	2	.....	5	17	17	10	5	25	6
Berrien	3	210	8	.....	2	51	74	3	35	39	88	18
Branch	3	129	5	.....	.....	25	54	3	24	76	77	3
Calhoun	3	212	4	3	1	63	77	4	47	83	90	5
Cass	3	70	3	1	1	22	25	3	9	22	47	1
Charlevoix	3	76	10	.....	.....	8	36	10	17	14	46	3
Cheboygan	2	14	4	.....	.....	8	.....	2	1	.....	6	2
Chippewa	2	101	10	1	1	10	49	10	31	14	.....	8
Clare	2	94	15	.....	.....	15	36	8	27	20	54	21
Clinton	3	80	6	.....	.....	16	42	5	25	16	60	2
Crawford	2	17	7	.....	.....	2	12	5	2	.....	.....	.....
Delta	3	100	2	.....	.....	23	22	2	10	30	.....	20
Dickinson	2	12	10	.....	.....	3	8	10	.....	5	.....	.....
Eaton	3	141	2	1	.....	21	48	17	14	21	.....	2
Emmet	3	81	10	.....	.....	9	27	7	14	6	23	10
Genesee	3	213	10	5	2	41	65	10	31	20	100	18
Gladwin	2	93	4	.....	.....	17	32	4	16	10	40	.....
Gogebic	3	59	2	.....	.....	5	15	2	4	5	18	.....
Grand Traverse	2	96	5	.....	.....	25	29	5	19	5	20	1
Gratiot	3	160	20	1	1	51	37	11	22	42	80	15
Hillsdale	3	251	6	.....	.....	33	98	6	70	20	117	8
Houghton	2	243	80	5	.....	68	72	74	27	60	70	82
Huron	2	185	1	1	1	33	70	1	30	5	60	1
Ingham	3	186	17	.....	.....	30	61	13	31	163	47	8
Ionia	3	182	11	1	1	43	62	9	27	48	91	6
Iosco	3	45	4	.....	.....	7	13	4	7	1	10	3
Iron	2	32	28	.....	.....	2	17	26	9	32	19	61
Isabella	2	118	16	1	1	15	24	13	11	29	34	73
Jackson	4	238	5	.....	.....	106	86	4	65	120	90	10
Kalamazoo	3	150	7	.....	.....	30	55	7	12	10	60	2
Kalkaska	2	12	8	.....	.....	6	3	6	.....	2	9	2
Kent	3	324	4	.....	.....	92	99	4	74	125	170	16
Keweenaw	2	11	4	.....	.....	2	7	4	3	3	2	1
Lake	2	47	3	.....	.....	15	17	3	17	4	4	.....
Lapeer	2	85	4	1	1	14	36	4	22	3	44	3
Leelanau	3	81	.....	.....	1	21	33	.....	17	2	19	.....
Lenawee	3	283	25	.....	.....	54	112	17	55	48	104	26
Livingston	3	164	10	.....	.....	25	81	8	35	16	104	.....
Luce	3	28	5	.....	.....	3	15	5	6	4	3	9
Mackinac	2	41	6	.....	.....	14	20	6	6	.....	.....	.....
Macomb	3	59	5	2	.....	6	24	5	10	2	14	.....

TABLE XII.

the county commissioner for the year ending June 30, 1910.

Number of teachers holding State Normal College certificates.	Number of teachers holding Central Normal School certificates.	Number of teachers holding Northern Normal School certificates.	Number of teachers holding Western Normal School certificates.	Number of teachers holding county normal training class certificates.	Number holding certificates issued by county boards of examiners.	Number holding certificates issued by city boards of education.	Number of legally qualified teachers in the county including city teachers.	Number of certificates suspended.	Number of certificates annulled.	Number of certificates transferred.	Number of districts hiring teachers by the year.	Number of new teachers added to teaching force during year.
1,294	520	289	210	1,916	8,198	2,417	19,113	5	1	498	4,965	2,660
1	1			2	40		43			3	40	10
5		2			49		57				8	2
20	2		28	49	175		286			160	35	35
				1	82	56	138			5		26
25	21		2	41	46		141			7	50	44
5	2			31	42		70				5	18
4	2	10			22		42				5	2
27	1		7	75	117	1	243			5	135	29
3	2			10	135	207	358			10		25
9	10			12	70		120			6	45	15
26	10		17	35	226	27	405			7	120	48
33	2		2	46	79	19	234			1	121	43
5	3		3	56	190	50	425			7	154	70
15	1		4	69	48	16	164			1	112	25
15	24			42	98		212			8	63	31
19	8		2	77	42	18	168			6	71	36
1	1	3		4	87		160			9		20
11	4			4	51		96			3	30	25
18	16			48	77	5	190			6	90	50
	4		11	4	34		42			4	5	
8	2	30	1		97	18	175				65	12
6		7		2	26	56	155			5	6	
57	6		6	28	110	10	256			9	100	30
23	12			5	84	14	139	1	1	8	40	
6	10			45	186	110	359			3	133	60
3	2				60		70			1	50	10
5		1	2		42	66	170			1	6	15
24	16		4	4	106	9	180			4	66	90
19	40			62	169	6	311	1		2	100	55
27	3		2		131	13	313			5	155	58
128		48			329	6	672			3	30	23
10	40			2	176	1	229			4		50
16	3			54	157	110	356			12	120	70
13	6		3	52	197	57	334			3	80	45
15	2			26	38		84			8	24	20
14	2	17	1		32		110			2		45
2	61			1	84	5	163				65	89
13				1	180		340			8	114	56
10			40		125		360			5	115	25
8	4		1	30	33		85			11	40	13
7	1		4	3	410	510	935			3	75	50
7		5			11		44					
	2			2	2		55			8	12	25
25	2			34	123		191			7	119	70
5	8		2		89		104			23		
45	1			37	226	25	360			4	185	70
14				2			180			6		40
1	1	2			18		33			5	15	15
8	2	1		4	58	3	79			1	59	16
29				87	95	12	215			3	113	23

TABLE XII.—*Concluded.*

Counties.	Number of public examinations held.	Number of applicants for regular certificates.	Number of applicants for special certificates.	Number of applicants receiving certificates.					Number licensed without experience in teaching.	Number of applicants having received normal school instruction.	Number of applicants having attended institute during year.	Number of teachers holding state certificates.
				County first grade.	Indorsed first grade.	Second grade.	Third grade.	Special.				
Manistee	3	114	14	.....	.....	26	48	10	26	12	69	16
Marquette	2	79	13	.....	1	3	32	13	18	27	45	37
Mason	3	58	3	.....	.....	12	23	3	7	4	35	40
Mecosta	2	151	13	.....	.....	23	39	3	7	6	25	.....
Menominee	2	94	20	.....	.....	23	33	17	10	4	24	6
Midland	2	56	10	.....	.....	11	16	6	4	14	24	.....
Missaukee	2	80	8	.....	.....	5	50	8	21	10	45	6
Monroe	3	171	15	.....	.....	53	60	.....	23	48	56	1
Montcalm	3	197	2	.....	.....	22	97	2	37	45	42	1
Montmorency	3	34	2	.....	.....	14	9	.....	4	5	23	2
Muskegon	3	112	1	.....	.....	36	30	1	10	10	52	2
Newaygo	3	196	12	1	.....	24	50	12	24	7	42	2
Oakland	3	209	19	.....	1	53	125	19	88	17	8	6
Oceana	2	101	10	1	1	13	31	7	10	12	41	.....
Ogemaw	3	71	2	.....	.....	14	21	2	11	6	28	1
Ontonagon	3	67	18	.....	.....	15	26	14	8	18	16	1
Osceola	2	81	4	1	1	23	31	4	16	21	32	5
Oscoda	3	22	4	.....	.....	3	10	4	7	.....	9	.....
Otsego	2	15	2	2	2	3	4	2	3	.....	.....	25
Ottawa	3	133	15	.....	.....	25	24	3	9	12	45	4
Presque Isle	4	41	3	.....	.....	3	25	3	8	7	20	.....
Roscommon	3	32	8	.....	.....	7	18	3	11	.....	21	.....
Saginaw	2	167	5	1	1	31	65	5	35	20	100	33
St. Clair	3	139	7	.....	.....	34	67	7	38	1	30	.....
St. Joseph	3	186	39	.....	1	33	70	22	23	71	58	41
Sanilac	3	225	3	1	1	29	87	3	38	96	.....	45
Schoolcraft	2	26	4	.....	.....	5	12	4	7	4	.....	30
Shiawassee	3	84	20	.....	1	34	28	14	13	12	60	1
Tuscola	3	197	7	2	.....	52	58	7	32	8	36	17
Van Buren	3	172	6	.....	.....	27	38	6	36	7	50	30
Washtenaw	3	167	11	.....	2	44	85	11	40	36	.....	.....
Wayne	2	144	24	3	.....	54	52	24	29	.....	.....	23
Wexford	2	76	5	3	2	13	27	5	16	8	26	2

TABLE XII.—*Concluded.*

Number of teachers holding State Normal College certificates.	Number of teachers holding Central Normal School certificates.	Number of teachers holding Northern Normal School certificates.	Number of teachers holding Western Normal School certificates.	Number of teachers holding county normal training class certificates.	Number holding certificates issued by county boards of examiners.	Number holding certificates issued by city boards of education.	Number of legally qualified teachers in the county including city teachers.	Number of certificates suspended.	Number of certificates annulled.	Number of certificates transferred.	Number of districts hiring teachers by the year.	Number of new teachers added to teaching force during year.
4	11	.....	1	59	129	70	269	.....	.....	4	60	42
12	.....	150	.....	.....	82	31	364	.....	.....	3	21	20
8	8	.....	6	33	70	15	141	.....	.....	2	60	25
3	.....	.....	.....	49	100	6	200	.....	.....	3	.....	100
.....	.....	4	.....	27	85	72	200	.....	.....	1	.....	20
4	12	.....	.....	44	56	4	153	.....	.....	1	50	25
1	4	1	.....	3	75	.....	110	.....	.....	3	50	15
23	3	.....	.....	.....	153	10	222	.....	.....	2	136	25
12	25	1	.....	22	175	.....	271	.....	.....	4	100	25
3	.....	.....	.....	.....	23	.....	40	.....	.....	3	7	5
12	4	.....	4	12	76	134	272	.....	.....	3	91	76
13	.....	.....	2	56	137	.....	263	.....	.....	6	102	50
72	1	.....	.....	53	179	18	420	.....	.....	8	197	105
33	3	.....	.....	53	97	.....	193	1	.....	3	.....	35
2	2	.....	.....	5	61	.....	75	.....	.....	5	.....	11
12	3	5	.....	.....	29	.....	91	.....	.....	5	.....	12
12	15	1	1	52	9	.....	179	.....	.....	.....	83	43
2	.....	.....	.....	2	24	.....	29	.....	.....	1	18	.....
11	12	.....	.....	18	22	.....	65	.....	.....	9	25	12
7	.....	.....	11	70	.....	47	201	1	.....	2	.....	35
8	6	.....	1	6	44	.....	72	.....	.....	.....	3	8
3	.....	.....	.....	1	25	.....	31	.....	.....	5	10	2
6	11	.....	1	61	211	283	573	.....	.....	.....	125	40
17	4	.....	1	68	101	84	282	.....	.....	1	152	30
16	1	.....	11	1	167	34	230	.....	.....	2	119	80
27	5	.....	1	13	222	.....	256	1	.....	.....	154	38
.....	27	.....	.....	3	21	6	70	.....	.....	1	.....	.....
6	3	.....	.....	31	148	18	239	.....	.....	8	80	35
5	7	.....	.....	20	119	.....	228	.....	.....	5	120	35
20	.....	.....	28	28	75	11	320	.....	.....	.....	150	40
37	.....	.....	.....	.....	142	93	342	.....	.....	5	.....	15
108	6	.....	.....	3	191	.....	1,865	.....	.....	6	.....	.....
5	7	1	.....	36	46	51	161	.....	.....	.....	66	34

TABLE XIII.

Miscellaneous statistics as reported by the county commissioners for the year ending June 30, 1910.

Counties.	Number of meetings of county teachers' associations.	Number of other teachers' meetings.	Number of days devoted to meetings of county board.	Amount allowed by board of supervisors for stationery, etc.	Amount of compensation received by members of the board, other than the commissioner.	Salary of the commissioner.	Amount of institute fees collected.	Number of districts visited by the commissioner during the year.	Number of visits made by commissioner and assistant visitor during the year.	Number of districts in which the compulsory attendance law is enforced.
Totals	132	343	862	$12,783 21	$20,693 86	$91,670 00	$10,690 55	7,211	12,477	6,846
Alcona	3	4	10	$75 00	$84 00	$300 00		40	28	40
Alger	1		4	120 96	26 06	500 00	$16 50	8	67	8
Allegan			8		442 60	1,500 00	168 00	183	226	185
Alpena			12	75 00	240 00	1,000 00	97 60	100	120	70
Antrim	1	1	2		195 00	1,200 00	64 50	72	120	72
Arenac	2		16		128 00	750 00	39 00	41	107	41
Baraga		1	3	40 00	120 00	650 00	30 50	5	82	5
Barry	2		6	110 00	175 00	1,300 00	132 50	142	190	142
Bay	3		9		268 00	1,200 00	199 00	74	200	74
Benzie	1		3	300 00	350 00	700 00	77 50	53	100	53
Berrien	1	2	10	318 25	420 00	1,500 00	221 50	140	239	140
Branch	3		7	70 00	178 00	1,500 00	187 50	126	278	126
Calhoun	1	47	38		237 00	1,500 00	210 00	155	260	164
Cass	1	1	3	175 00	454 00	1,200 00	166 50	114	125	114
Charlevoix	1		3	200 00	280 00	1,200 00	91 00	68	178	68
Cheboygan	3		6	200 00	136 00	1,000 00	62 00	67	91	71
Chippewa		1	2	400 00	208 00	1,500 00	111 00	86	98	86
Clare	1		3		160 00	600 00	69 00	61	76	61
Clinton	5	6	4	200 00	330 00	1,500 00	108 00	128	225	128
Crawford		3	7	20 00	28 00	300 00	20 00	18	24	
Delta			11	289 00	216 00	1,200 00	75 00	62	200	62
Dickinson		1	4	200 00	24 00	1,200 00	77 00	6	200	6
Eaton			3	385 69	198 00	1,500 00	183 45	139	278	139
Emmet	1	2	12	81 66	253 00	1,000 00	86 50	71	96	71
Genesee	4	4	8	250 00	650 00	1,500 00	269 50	153	215	153
Gladwin	1	2	3	110 00	80 00	500 00	62 00	45	52	45
Gogebic	1	3	9			600 00		6	40	6
Gd. Traverse	1	4	6		124 00	1,200 00	107 00	67	100	67
Gratiot	2		12	400 00	300 00	1,200 00	146 00	131	300	131
Hillsdale	2	3	5		360 00	1,200 00	241 00	154	258	160
Houghton	1		2	120 00	160 00	1,350 00	381 00	31	70	31
Huron	6		4	200 00	256 00	1,500 00		123	150	123
Ingham	2	5	47	200 00	191 41	1,350 00	225 50	135	213	136
Ionia	2	3	13	300 00	520 00	1,200 00	162 00	141	189	135
Iosco	2	20	12	200 00	155 00	1,000 00	28 50	32	70	32
Iron			9		96 00	600 00	60 00	28	34	5
Isabella	1	1	6	169 95	152 00	1,400 00	124 00	106	119	106
Jackson	2		6	240 00	404 00	1,500 00	200 00		240	
Kalamazoo	3	8	3	100 00	250 00	1,500 00		129	150	129
Kalkaska	3	3	4	200 00	150 00	1,000 00	36 50	51	147	51
Kent	4	4	52	450 00	900 00	1,500 00	518 50	180	225	205
Keweenaw			4	48 25	11 00	400 00	27 50	16	15	15
Lake			12	48 00	96 00	560 00	44 00	45	98	40
Lapeer	2	3	3	275 00	424 00	1,200 00	211 50	134	217	134
Leelanau				72 00		700 00	63 50			
Lenawee	1	64	9	366 65	420 00	1,500 00	256 00	191	228	195
Livingston	1	1	4	200 00	356 00	1,200 00	109 00	134	150	132
Luce	1	3	11	51 73	124 00	200 00	23 00	15	32	15
Mackinac			9	25 16	160 00	600 00	60 50	53	70	10
Macomb	2	12	9		220 00	1,600 00	112 00	113	230	106

TABLE XIII.—*Concluded.*

Counties.	Number of meetings of county teachers' associations.	Number of other teachers' meetings.	Number of days devoted to meetings of county board.	Amount allowed by board of supervisors for stationery, etc.	Amount of compensation received by members of the board, other than the commissioner.	Salary of the commissioner.	Amount of institute fees collected.	Number of districts visited by the commissioner during the year.	Number of visits made by commissioner and assistant visitor during the year.	Number of districts in which the compulsory attendance law is enforced.
Manistee	1	2	8	$214 00	$286 00	$850 00	.....	70	191	70
Marquette	.....	2	2	410 27	128 00	1,800 00	$186 00	58	203	58
Mason	2	6	19	200 00	119 52	1,200 00	41 00	65	120	65
Mecosta	6	6	6	.....	.....	1,000 00	.....	109	150	109
Menominee	1	1	8	150 00	76 00	1,500 00	105 50	40	200	.....
Midland	1	.....	3	75 41	218 00	1,000 00	69 50	80	130	80
Missaukee	2	.....	26	75 61	210 00	910 00	78 00	63	68	.....
Monroe	3	6	27	.....	216 00	1,200 00	144 50	138	163	138
Montcalm	.....	.....	9	200 00	490 00	1,500 00	126 00	142	178	142
Montmorency	2	10	5	15 00	140 00	600 00	35 00	35	92	35
Muskegon	.....	2	103	187 32	830 00	1,400 00	178 50	90	140	90
Newaygo	2	3	10	419 98	472 00	1,200 00	149 50	121	200	121
Oakland	.....	.....	16	24 72	720 00	1,500 00	289 50	200	294	200
Oceana	3	3	5	.....	429 27	1,200 00	130 00	94	200	94
Ogemaw	.....	.....	3	.....	152 00	500 00	52 50	51	88	51
Ontonagon	2	.....	4	23 95	168 00	750 00	69 50	82	143	82
Osceola	1	2	2	146 69	224 00	1,200 00	109 50	96	144	96
Oscoda	11	11	9	28 71	96 00	200 00	19 00	18	18	18
Otsego	.....	.....	3	79 38	144 00	500 00	37 00	21	22	21
Ottawa	8	2	11	.....	.....	1,200 00	173 00	122	147	122
Presque Isle	.....	2	15	45 00	120 00	500 00	50 00	36	49	36
Roscommon	.....	.....	9	114 49	72 00	400 00	19 00	28	29	27
Saginaw	4	5	20	.....	500 00	1,500 00	338 00	.....	250 00	.....
St. Clair	2	.....	3	1,200 00	224 00	1,500 00	123 00	152	195	152
St. Joseph	1	8	3	325 00	198 00	1,500 00	160 50	123	256	123
Sanilac	.....	10	16	.....	548 00	1,500 00	200 00	154	203	154
Schoolcraft	.....	.....	6	67 44	162 00	700 00	45 50	29	52	.....
Shiawassee	2	10	3	200 00	416 00	1,500 00	144 00	124	192	124
Tuscola	1	.....	5	192 94	400 00	1,500 00	176 00	150	160	151
Van Buren	1	15	3	350 00	297 00	1,500 00	169 00	152	228	152
Washtenaw	.....	5	42	.....	336 00	1,500 00	222 50	165	259	165
Wayne	2	.....	6	500 00	440 00	2,000 00	1,023 00	149	350	.....
Wexford	.....	20	4	250 00	152 00	1,000 00	85 50	82	156	82

TABLE XIV.

Condition of schools and schoolhouses as reported by the county commissioner for the year ending June 30, 1910.

Counties.	Number of schools supplied with dictionaries.	Number of schools supplied with maps.	Number of schools supplied with globes.	Number of schoolhouses properly heated and ventilated.	Number of schools having uniform text-books in each branch.	Number of schools having a prescribed course of study.	Number of schools properly classified.	Number of schools in which physiology, etc., is taught.	Number of districts that have adopted text-books in physiology.	Number of districts that have taught communicable diseases according to law.	Number of townships organized as township districts.	Number of districts furnishing free text-books.	Number of pupils in eighth grade exclusive of graded schools.	Number of eighth grade diplomas granted.
Totals	7,677	7,255	7,007	2,468	6,005	2,106	6,194	7,692	5,997	6,915	168	1,245	15,804	9,000
Alcona	40	40	32	.....	40	.....	40	40	40	40	3	10	84	38
Alger	30	30	30	30	30	3	8	8	8	8	8	8	67	43
Allegan	185	170	168	180	185	12	160	185	185	165	.....	8	526	225
Alpena	77	77	60	46	65	.....	77	77	.....	77	5	.....	50	12
Antrim	72	72	68	50	65	25	65	72	60	72	.....	25	130	75
Arenac	40	40	39	.....	35	5	41	41	41	41	.....	15	89	81
Baraga	5	5	5	6	5	5	5	5	5	5	5	5	24	14
Barry	140	135	130	.....	130	.....	133	142	142	142	.....	4	325	255
Bay	83	69	64	14	92	.....	37	83	92	92	1	46	275	192
Bennie	48	45	30	8	50	6	40	53	53	40	.....	9	90	45
Berrien	137	134	131	12	120	50	137	140	50	140	.....	9	324	210
Branch	105	90	84	26	120	20	105	120	125	95	.....	2	220	162
Calhoun	160	150	148	25	140	12	125	164	164	164	.....	10	323	192
Cass	100	95	90	90	95	104	109	100	100	100	.....	.....	195	99
Charlevoix	78	78	78	19	62	4	45	78	78	78	.....	33	125	59
Cheboygan	67	68	61	12	70	15	65	72	70	40	3	53	165	80
Chippewa	73	70	64	4	48	4	60	97	97	97	8	80	108	53
Clare	54	60	42	5	.....	.....	.....	.....	.....	30	.....	30	.....	31
Clinton	128	128	100	128	128	128	128	128	128	128	.....	3	260	125
Crawford	24	24	24	20	24	1	15	24	24	24	.....	.....	15	13
Delta	50	50	45	50	56	3	56	62	62	62	11	4	120	33
Dickinson	45	45	45	45	45	45	45	45	45	45	6	45	69	46
Eaton	135	124	123	11	139	.....	.....	139	139	139	.....	7	323	127
Emmet	71	71	66	.....	60	.....	.....	71	71	71	.....	7	186	68
Genesee	153	70	130	10	125	14	130	153	140	100	.....	3	275	282
Gladwin	45	50	55	50	45	3	50	50	50	50	2	15	150	54
Gogebic	40	40	40	40	.....	1	40	40	40	40	6	40	25	14
Grand Traverse	60	63	54	35	67	7	60	67	60	67	.....	11	110	64
Gratiot	125	115	115	5	131	.....	131	131	131	131	.....	3	400	232
Hillsdale	158	154	150	.....	148	.....	.....	160	.....	160	.....	.....	287	149
Houghton	127	127	127	42	26	12	40	30	22	30	5	14	28	26
Huron	123	123	92	92	123	8	111	123	.....	123	.....	15	141	50
Ingham	136	123	115	15	130	11	90	135	136	.....	.....	1	250	124
Ionia	139	135	120	10	130	141	141	141	141	141	.....	.....	275	158
Iosco	28	28	28	16	28	10	15	28	28	28	1	17	81	51
Iron	34	34	34	20	27	4	27	28	28	32	7	23	18	11
Isabella	105	98	101	14	84	98	106	106	106	106	.....	2	305	155
Jackson	153	146	140	.....	130	130	130	171	130	130	.....	.....	396	217
Kalamazoo	117	112	109	.....	97	12	120	129	.....	120	.....	9	350	200
Kalkaska	50	50	50	4	50	25	50	51	.....	51	.....	40	81	55
Kent	196	178	200	25	205	40	205	205	205	205	.....	5	700	492
Keweenaw	15	15	15	9	15	1	.....	15	15	.....	3	2	22	13
Lake	45	45	30	1	.....	3	40	45	31	40	.....	9	52	29
Lapeer	127	91	114	9	115	9	120	134	5	134	.....	.....	250	205
Leelanau	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	54
Lenawee	188	185	182	151	195	195	180	195	195	185	.....	2	508	180
Livingston	134	109	134	134	.....	.....	132	132	.....	132	.....	.....	.....	111
Luce	17	18	18	15	12	15	15	18	15	15	4	16	32	7
Mackinac	54	57	49	7	45	10	35	58	14	14	12	9	26	22
Macomb	113	105	100	18	21	.....	21	113	113	113	.....	2	160	36

TABLE XIV.—*Concluded.*

Counties.	Number of schools supplied with dictionaries.	Number of schools supplied with maps.	Number of schools supplied with globes.	Number of schoolhouses properly heated and ventilated.	Number of schools having uniform text-books in each branch.	Number of schools having a prescribed course of study.	Number of schools properly classified.	Number of schools in which physiology, etc., is taught.	Number of districts that have adopted text-books in physiology.	Number of districts that have taught communicable diseases according to law.	Number of townships organized as township districts.	Number of districts furnishing free text-books.	Number of pupils in eighth grade exclusive of graded schools.	Number of eighth grade diplomas granted.
Manistee	68	64	61	68	66	7	70	70	70	.....	.....	28	293	117
Marquette	112	117	101	23	47	47	47	47	21	21	18	18	95	54
Mason	65	65	65	5	65	65	65	63	65	65	.....	15	122	62
Mecosta	100	104	98	3	55	6	82	109	.....	109	.....	16	.....	134
Menominee	86	86	75	12	86	86	86	86	86	86	6	37	110	42
Midland	80	75	68	20	70	40	75	80	80	80	.....	18	157	99
Missaukee	63	60	40	.....	30	6	.....	63	63	.....	.....	50	.....	56
Monroe	138	136	135	4	138	7	138	138	138	138	.....	.....	348	183
Montcalm	142	142	142	.....	142	.....	107	142	.....	142	.....	3	350	88
Montmorency	35	35	35	10	30	35	35	35	35	35	6	9	60	20
Muskegon	89	89	70	30	33	.....	33	92	92	92	.....	30	206	84
Newaygo	118	111	111	15	78	10	110	121	121	121	.....	25	250	137
Oakland	184	197	186	.....	.....	22	.....	198	.....	.....	.....	.....	330	183
Oceana	92	92	92	94	94	10	94	94	94	94	.....	5	156	97
Ogemaw	41	45	40	.....	28	6	42	49	44	49	1	17	77	34
Ontonagon	75	73	70	65	72	60	53	82	82	82	10	6	45	32
Osceola	87	81	91	6	96	96	96	96	96	96	.....	29	272	115
Oscoda	20	18	20	.....	24	.....	23	29	.....	29	2	25	18	10
Otsego	44	44	44	44	25	3	44	44	44	44	1	15	31	36
Ottawa	122	122	122	...	110	40	122	122	122	122	.....	15	371	242
Presque Isle	56	65	41	6	14	3	47	31	10	31	5	21	24	17
Roscommon	17	12	15	6	13	.....	7	21	.....	21	.....	9	12	7
Saginaw	187	187	187	100	75	3	187	187	187	187	.....	60	475	356
St. Clair	145	145	140	152	152	152	152	152	152	152	.....	25	350	178
St. Joseph	120	98	68	70	80	60	80	123	.....	123	.....	.....	375	129
Sanilac	154	130	130	20	154	.....	154	154	154	154	.....	5	500	242
Schoolcraft	32	33	33	29	34	34	34	34	34	29	9	12	57	39
Shiawassee	118	100	94	.....	114	10	90	124	124	124	.....	1	281	164
Tuscola	140	120	120	40	151	.....	100	151	151	151	.....	4	500	235
Van Buren	150	130	145	25	100	25	140	152	152	100	.....	2	320	199
Washtenaw	145	125	131	.....	.....	.....	165	165	165	165	20	1	206	117
Wayne	147	147	139	40	.....	.....	149	149	149	149	.....	15	249	118
Wexford	68	66	69	78	76	82	82	82	82	82	.....	78	140	105

TABLE XV.

Showing the extent to which physiology was taught in the schools of the State during the year ending July 11, 1910, as compiled from directors' reports.

Counties.	Number of districts in county.	Number of districts reporting physiology taught.	Number of districts reporting physiology not taught.	Number of districts not reporting.
Totals	7,333	6,669	121	543
Alcona	37	30	1	6
Alger	8	7	1	
Allegan	185	167	8	10
Alpena	19	18		1
Antrim	72	66	2	4
Arenac	43	38	1	4
Baraga	5	5		
Barry	143	127	1	15
Bay	70	62	2	6
Bensie	54	54		
Berrien	145	127	1	17
Branch	127	126		1
Calhoun	163	136	2	25
Cass	112	105	4	3
Charlevoix	70	62	1	7
Cheboygan	58	56		2
Chippewa	58	50		8
Clare	70	61	1	8
Clinton	129	115	2	12
Crawford	26	22	1	3
Delta	21	20		1
Dickinson	9	8		1
Eaton	142	135		7
Emmet	72	70		2
Genesee	156	139	1	16
Gladwin	55	47		8
Gogebic	8	8		
Grand Traverse	68	60	1	7
Gratiot	132	114	3	15
Hillsdale	163	140	1	22
Houghton	34	33		1
Huron	123	113	4	6
Ingham	137	124	3	10
Ionia	141	139	1	1
Iosco	32	30		2
Iron	7	7		
Isabella	107	106		1
Jackson	153	142	4	7
Kalamazoo	128	113	3	12
Kalkaska	51	47	2	2
Kent	205	184	4	17
Keweenaw	5	5		
Lake	48	41	2	5
Lapeer	134	125	1	8
Leelanau	59	48	1	10
Lenawee	195	188	3	4
Livingston	134	112	7	15
Luce	4	4		
Mackinac	14	14		
Macomb	113	105	3	5
Manistee	68	63	1	4
Marquette	21	18		3
Mason	67	53	3	11
Mecosta	111	100	3	8
Menominee	42	41		1

TABLE XV.—*Concluded.*

Counties.	Number of districts in county.	Number of districts reporting physiology taught.	Number of districts reporting physiology not taught.	Number of districts not reporting.
Midland	83	78	1	4
Missaukee	65	53	2	10
Monroe	139	124	1	14
Montcalm	142	128	2	12
Montmorency	9	8	.....	1
Muskegon	92	82	.....	10
Newaygo	125	113	2	10
Oakland	201	171	8	22
Oceana	94	85	1	8
Ogemaw	50	45	1	4
Ontonagon	10	10	.....	.....
Osceola	96	93	.....	3
Oscoda	19	15	3	1
Otsego	37	32	.....	5
Ottawa	123	112	1	10
Presque Isle	36	29	1	6
Roscommon	28	27	.....	1
Saginaw	163	153	1	9
St. Clair	156	153	3	.....
St. Joseph	123	120	2	1
Sanilac	154	135	1	18
Schoolcraft	10	10	.....	.....
Shiawassee	124	124	.....	.....
Tuscola	152	139	1	12
Van Buren	150	137	1	12
Washtenaw	166	157	6	3
Wayne	151	134	2	15
Wexford	82	72	2	8

TABLE XVI.

Graded school statistics compiled from township clerks'

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Totals		465,989	327,213	111,820	84	$30,179,242	$4,962,564 59	1,113	8,377
Ada	Kent	129	116	180	84	$3,000		1	3
Addison	Lenawee	151	138	174	95	20,000	$7,700 00	2	4
Adrian	Lenawee	2,527	1,773	200	96	250,000	60,000 00	4	50
Akron	Tuscola	183	190	200	69	3,000		1	3
Alabaster	Iosco	141	121	200	73	3,500			2
Alanson	Emmet	216	201	180	71	6,500	300 00	2	3
Alba	Antrim	132	142	180	61	5,000		1	3
Albert Tp	Montmorency	267	225	200	93	6,000		1	8
Albion	Calhoun	1,279	1,158	184	94	75,000	8,000 00	5	29
Alden	Antrim	106	103	180	74	4,700	500 00	1	3
Algonac	St. Clair	457	338	180	82	25,000	3,000 00	1	10
Allegan	Allegan	881	749	190	75	100,000		3	21
Alma	Gratiot	767	743	195	96	75,000	14,000 00	3	19
Almont	Lapeer	227	195	200	83	8,000	837 60	1	7
Alpena	Alpena	3,918	2,112	188	95	80,000		5	51
Ann Arbor	Washtenaw	3,508	2,317	187	95	420,000	215,000 00	12	75
Applegate	Sanilac	83	57	170	65	1,600		1	1
Arcadia	Manistee	194	100	180	79	2,000		1	1
Armada	Macomb	213	168	190	87	10,000	325 00	2	4
Ashley	Gratiot	175	156	200	76	3,000		1	4
Athens	Calhoun	196	147	180	95	5,000	14,000 00	1	5
Atlantic Mine	Houghton	2,254	1,800	200	84	219,000	80,000 00	7	44
Attica	Lapeer	106	92	200	74	1,200	152 67	1	1
Augusta	Kalamazoo	141	118	180	99	3,000		1	5
Au Sable	Iosco	432	367	200	79	7,000		2	8
Au Train Tp	Alger	87	75	200	60	3,000		2	3
Bad Axe	Huron	492	397	192	93	30,000	6,000 00	2	13
Bainbridge	Berrien	119	96	180	86	1,800	100 00	1	1
Baldwin	Lake	163	153	180	87	1,000		1	3
Baldwin Tp	Delta								
Bancroft	Shiawassee	117	131	200	88	10,000		1	5
Bangor	Van Buren	372	344	190	94	25,000	4,000 00	4	7
Baraga	Baraga	1,035	610	200	80	53,000	28,000 00	6	11
Baroda	Berrien	204	160	160	75	6,000		1	3
Barryton	Mecosta	154	156	190	85	10,000		1	2
Bath	Clinton	92	81	180	87	6,000		1	2
Battle Creek	Calhoun	5,755	4,420	185	96	770,243	35,000 00	15	111
Bay City	Bay	13,342	6,638	189	98	662,116	107,000 00	18	182
Bay Port	Huron	130	90	200	72	2,400		1	1
Bear Lake	Manistee	177	145	180	80	6,000		1	5
Beaverton	Gladwin	205	203	180	71	12,650	7,500 00	1	5
Belding	Ionia	882	752	190	96	22,000	31,500 00	1	22
Bellaire	Antrim	339	312	180	93	25,000	8,400 00	1	11
Belleville	Wayne	150	136	200	96	12,000		1	3
Bellevue	Eaton	266	234	200	92	1,500		2	7
Benton Harbor	Berrien	2,254	1,740	180	95	150,000	28,000 00	5	44
Bensonia	Benzie	271	240	176	78	6,000	5,350 00	1	5
Berlamont	Van Buren	88	73	180	73	1,500		1	1
Berlin	Ottawa	108	88	180	92	9,200	8,600 00	1	3
Berlin Tp. Sfr	Ionia	74	49	180	79	700			1
Berrien Springs	Berrien	204	207	180	82	12,000	5,100 00	1	7
Bessemer	Gogebic	1,332	1,116	194	98	134,000	37,739 20	2	38
Big Rapids	Mecosta	1,162	870	192	96	100,000		1	30
Birmingham	Oakland	435	358	196	92	35,000		1	18
Blanchard	Isabella	113	95	180	87	5,000		1	2

TABLE XVI.

reports for the year ending July 11, 1910.

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
11,390	79,487	$1199627 46	$4,777,360 81	$105 32	$60 10	$5,976,988 27	$10,623,560 64	13038	$162209 65
9	27	$675 00	$1,017 00	$75 00	$37 67	$1,692 00	$2,337 89	25	$288 33
15	30	1,040 00	1,406 56	69 33	46 85	2,446 56	3,703 46	21	214 80
35	300	6,499 13	27,914 19	185 68	93 04	34,413 32	60,506 26	139	2,288 83
10	30	750 00	1,100 00	75 00	36 66	1,850 00	2,511 89	15	67 00
.....	20	.....	850 00	.....	42 50	850 00	1,023 22	.....	.....
18	27	1,093 75	1,125 00	60 76	41 67	2,218 75	3,067 40	4	23 75
9	27	750 00	1,242 00	83 33	46 00	1,992 00	2,951 22	6	.....
10	80	750 00	3,000 00	75 00	37 50	3,750 00	4,874 41	6	.....
47	275	4,400 00	14,760 00	93 70	53 68	19,160 00	26,835 21	45	743 43
4	23	240 00	1,170 00	60 00	50 87	1,410 00	1,907 90	5	19 50
9	90	1,100 00	4,185 00	122 22	46 50	5,285 00	8,472 51	6	48 25
29	183	2,400 00	10,536 00	82 76	57 52	12,936 00	28,045 94	42	595 33
28	181	3,000 00	9,654 59	107 14	53 33	12,654 59	20,164 48	45	544 70
10	60	1,100 00	2,788 75	110 00	46 48	3,888 75	4,823 84	18	170 56
50	510	5,350 00	27,639 75	107 00	54 10	32,989 75	53,616 60	31	.....
120	750	17,050 00	48,879 30	142 08	65 17	65,929 30	114,434 52	241	5,851 47
9	7	450 00	245 00	50 00	35 00	695 00	608 18	1	.....
9	9	720 00	423 00	80 00	47 00	1,143 00	1,475 97	2	6 00
19	38	1,277 50	1,630 84	67 24	42 91	2,908 34	3,978 00	23	190 88
10	40	600 00	1,727 50	60 00	43 18	2,327 50	3,237 60	16	90 00
9	45	900 00	2,070 00	100 00	46 00	2,970 00	4,278 84	29	255 20
70	416	7,725 00	24,143 50	110 36	58 03	31,868 50	103,582 60	39	820 00
10	10	550 00	350 00	55 00	35 00	900 00	1,397 96	12	51 00
9	45	875 00	2,070 00	97 22	46 00	2,945 00	3,734 68	27	232 25
20	80	1,500 00	3,601 69	75 00	45 02	5,101 69	6,881 67	.....	.....
20	30	1,200 00	1,500 00	60 00	50 00	2,700 00	3,295 23	.....	.....
20	122	1,750 00	5,550 00	87 50	45 49	7,300 00	10,245 80	39	611 00
8	9	400 00	378 00	50 00	42 00	778 00	956 56	1	8 00
9	25	675 00	991 25	75 00	39 65	1,666 25	2,154 20	6	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	42	800 00	1,674 00	80 00	39 85	2,474 00	3,765 20	34	259 00
38	67	2,615 00	2,916 50	68 81	43 53	5,531 50	7,009 35	49	993 02
60	110	4,800 00	5,650 00	80 00	51 36	10,450 00	41,406 99	.....	.....
8	24	560 00	1,080 00	70 00	45 00	1,640 00	2,099 40	1	12 00
9	19	760 00	760 00	84 44	40 00	1,520 00	2,352 18	12	49 06
9	18	675 00	765 00	75 00	42 50	1,440 00	1,833 39	18	247 25
150	1,110	16,297 94	64,142 10	108 65	57 79	80,440 04	232,384 59	101	1,627 07
180	1,820	20,875 00	109,960 35	115 97	60 41	130,835 35	192,442 16	113	1,564 00
10	10	700 00	500 00	70 00	50 00	1,200 00	1,390 67	.....	.....
9	30	810 00	1,275 00	90 00	42 50	2,085 00	3,579 55	32	244 46
9	45	675 00	1,710 00	75 00	38 00	2,385 00	3,985 68	18	71 33
10	218	1,200 00	11,189 90	120 00	51 33	12,389 90	23,720 64	27	504 57
9	99	1,050 00	3,818 62	116 67	38 57	4,868 62	7,625 28	12	113 25
10	30	900 00	1,500 00	90 00	50 00	2,400 00	3,142 85	34	305 94
20	70	1,650 00	3,611 25	82 50	51 58	5,261 25	7,161 31	23	152 51
45	396	5,900 00	22,592 50	131 11	57 05	28,492 50	47,897 71	61	1,280 48
9	45	800 00	1,979 99	88 89	44 00	2,779 99	4,974 54	7	56 60
9	9	450 00	315 00	50 00	35 00	765 00	1,134 14	1	5 00
9	27	800 00	1,260 00	88 89	46 67	2,060 00	10,452 60	32	408 75
.....	9	.....	450 00	.....	50 00	450 00	682 32	.....	.....
9	63	1,000 00	3,015 00	111 11	47 85	4,015 00	11,145 44	22	198 42
20	380	2,800 00	19,935 25	140 00	52 46	22,735 25	33,568 42	15	26 00
10	290	1,500 00	14,236 78	150 00	49 09	15,736 78	24,904 22	20	113 00
10	134	1,400 00	6,837 00	140 00	51 02	8,237 00	10,870 71	60	1,167 75
9	18	540 00	675 00	60 00	37 50	1,215 00	1,849 99	7	29 00

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Blissfield Tp. 1 fr.	Lenawee	143	114	200	74	$7,000			3
Blissfield Tp. 2 fr.	Lenawee	265	256	200	90	35,000	$16,000 00	1	8
Bloomingdale	Van Buren	166	130	180	91	6,500		1	4
Boardman	Kalkaska	222	217	180	70	5,000		1	4
Boyne City	Charlevoix	1,541	1,312	190	92	80,000	43,000 00	3	33
Boyne Falls	Charlevoix	150	113	180	92	5,500			4
Breckenridge	Gratiot	183	178	200	87	3,500	500 00	1	4
Breedsville	Van Buren	110	93	180	71	9,000	3,000 00	1	2
Bridgehampton Tp. 1	Sanilac	57	43	180	70	1,700			1
Bridgehampton Tp. 2	Sanilac	71	68	200	54	1,500		1	
Bridgehampton Tp. 5 fr.	Sanilac	61	44	180	59	800			1
Bridgeman	Berrien	183	95	160	77			1	1
Bridgeport	Saginaw	109	67	200	83	4,000		1	1
Brighton	Livingston	183	178	195	87	19,000	1,000 00	1	5
Britton	Lenawee	129	104	190	88	7,000	350 00	1	2
Bronson	Branch	268	192	165	92	16,000		1	8
Brooklyn	Jackson	143	134	190	85	5,000		1	6
Brown City	Sanilac	211	198	200	93	25,000	8,000 00	1	6
Buchanan	Berrien	379	331	190	84	30,000	76 46	2	12
Buckley	Wexford	195	178	180	70	5,600		1	7
Burden	Sanilac	151	88	200	60	2,000	725 00	1	1
Burlington	Calhoun	87	71	176	77	3,500		1	2
Burnips Corners	Allegan	93	71	180	95	3,000		1	2
Burr Oak	St. Joseph	182	161	190	83	12,000		2	6
Burt Tp	Alger	443	405	192	95	20,000		1	13
Byron	Shiawassee	126	101	200	93	5,000		1	4
Cadillac	Wexford	2,308	1,760	190	94	150,000	25,000 00	4	45
Cady	Macomb	138	67	180	79			1	
Caledonia	Kent	135	112	200	99	6,000		1	3
Caledonia Tp. 3	Kent	67	60	180	68	2,000		1	1
Calumet	Houghton	8,054	6,565	200	84	125,000		17	191
Calumet Tp. 2	Houghton	1,956	1,411	200	83	50,000		1	39
Camden	Hillsdale	109	104	180	96	8,000	500 00	1	4
Cannon Tp. 2 fr.	Kent	80	80	180	79	2,000		1	1
Capac	St. Clair	195	161	200	93	10,000		1	4
Carleton	Monroe	179	111	200	92	9,000	6,000 00	1	3
Caro	Tuscola	607	514	195	96	22,000		2	16
Carrollton Tp. 1	Saginaw	416	250	200	70	10,000		1	6
Carrollton Tp. 2	Saginaw	298	200	200	68	4,500		1	4
Carson City	Montcalm	252	197	190	97	15,000		1	7
Carsonville	Sanilac	187	152	200	70	4,000		1	4
Caseville	Huron	152	131	200	90	5,000		1	3
Casnovia	Muskegon	107	98	180	96	5,500	200 00	1	3
Cass City	Tuscola	375	295	193	87	20,000	1,700 00	2	12
Cassopolis	Cass	268	225	190	88	18,000		1	10
Cedar Springs	Kent	261	221	190	95	22,500	2,500 00	1	8
Central Lake	Antrim	254	249	190	96	18,000	74 93	1	9
Centerville	St. Joseph	161	165	190	84	1,200	100 00	1	8
Ceresco	Calhoun	63	44	178	73	2,000		2	1
Champion Tp	Marquette	446	359	200	94	15,000		3	8
Chandler Tp. 5 fr.	Huron	164	96	200	56	1,600		1	1
Charlevoix	Charlevoix	747	480	180	93	43,000	20,000 00	4	16
Charlotte	Eaton	1,038	985	189	96	52,000		2	28
Charlton Tp	Otsego	114	105	180	82	6,500		2	2
Chase	Lake	107	82	175	81	1,500		1	1
Chassell Tp	Houghton	541	440	200	71	11,000		1	16
Cheboygan	Cheboygan	2,364	1,546	200	94	146,000	78,000 00	6	32
Chelsea	Washtenaw	484	311	200	94	50,000	28,400 00	1	15
Chesaning	Saginaw	371	285	190	96	20,000		2	7
Chief	Manistee	85	75	160	92	1,700	800 00	1	2

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
.....	30	.....	$1,425 00	.....	$47 50	$1,425 00	$2,228 75	.....	.....
10	80	$1,100 00	3,725 00	$110 00	46 56	4,825 00	8,634 91	68	$917 25
9	36	752 50	1,710 00	83 61	47 50	2,462 50	3,183 99	22	213 50
9	36	720 00	1,485 00	80 00	41 25	2,205 00	2,905 94	5	58 87
29	281	2,900 00	14,018 66	100 00	49 88	16,918 66	63,653 68	22	188 27
.....	35	.....	1,903 50	.....	54 38	1,903 50	3,182 59	2	11 00
10	40	800 00	1,650 00	80 00	41 25	2,450 00	3,649 10	28	180 75
9	18	540 00	720 00	60 00	40 00	1,260 00	2,120 51	5	19 50
.....	9	.....	405 00	.....	45 00	405 00	1,057 48	.....	.....
10	.....	610 00	.....	61 00	.....	610 00	782 74	3	.....
.....	9	.....	450 00	.....	50 00	450 00	500 00	.....	.....
8	8	520 00	320 00	65 00	40 00	840 00	1,042 56	.....	.....
10	10	600 00	400 00	60 00	40 00	1,000 00	1,525 13	3	18 90
10	50	800 00	2,000 00	80 00	40 00	2,800 00	3,860 34	12	132 50
9	19	712 50	760 00	79 17	40 00	1,472 50	2,641 67	11	83 00
8	62	1,000 00	3,289 00	125 00	53 04	4,289 00	6,175 74	56	747 47
10	38	1,000 00	1,807 50	100 00	47 56	2,807 50	2,321 71	39	446 46
10	60	800 00	2,750 00	80 00	45 83	3,550 00	5,171 96	50	672 11
19	100	1,912 50	4,526 50	100 66	45 27	6,439 00	9,045 90	57	260 00
4	40	262 50	1,866 75	65 62	46 66	2,129 25	2,903 89	20	68 75
10	10	700 00	350 00	70 00	35 00	1,050 00	1,278 75	8	16 46
9	18	450 00	720 00	50 00	40 00	1,170 00	1,522 54	7	31 00
9	18	585 00	703 50	65 00	39 06	1,288 50	1,540 92	15	197 30
19	55	1,160 00	2,563 75	61 05	46 61	3,723 75	4,754 30	33	558 00
10	120	1,300 00	6,290 84	130 00	52 42	7,590 84	11,580 23	.....	.....
10	30	750 00	1,300 00	75 00	43 33	2,050 00	2,971 48	27	317 75
38	428	4,950 00	23,959 27	130 26	55 98	28,909 27	41,808 90	10	193 00
9	.....	495 00	.....	.....	55 00	495 00	621 76	2	.....
10	30	800 00	1,275 00	80 00	42 50	2,075 00	2,809 48	22	208 00
9	9	450 00	270 00	50 00	30 00	720 00	893 77	5	15 25
160	1,890	22,675 00	120,965 06	141 72	63 99	143,640 06	216,949 08	122	7,357 50
10	359	650 00	20,830 63	65 00	58 02	21,480 63	59,735 82	.....	.....
9	36	850 00	1,465 00	94 44	40 69	2,315 00	3,285 00	31	273 86
9	9	540 00	360 00	60 00	40 00	900 00	1,154 55	8	18 70
10	40	900 00	1,800 00	90 00	45 00	2,700 00	3,764 68	25	234 00
10	30	700 00	1,125 00	70 00	37 50	1,825 00	3,097 09	18	255 75
20	159	1,750 00	7,857 50	87 50	49 42	9,607 50	13,894 61	73	813 05
10	54	1,000 00	2,544 50	100 00	47 12	3,544 50	4,987 61	.....	.....
10	34	750 00	1,531 00	75 00	45 02	2,281 00	3,818 84	.....	.....
10	66	900 00	3,228 75	90 00	48 92	4,128 75	5,657 68	37	400 07
10	30	700 00	1,392 50	70 00	46 41	2,092 50	3,256 31	14	87 57
10	30	680 00	1,190 00	68 00	39 66	1,870 00	2,449 78	6	72 63
9	27	750 00	1,125 00	83 33	41 67	1,875 00	2,363 58	19	101 44
20	120	1,800 00	5,241 00	90 00	43 67	7,041 00	8,938 90	59	897 77
9	86	1,100 00	4,402 50	122 22	51 19	5,502 50	7,483 22	31	315 09
9	67	1,000 00	3,355 00	111 11	50 07	4,355 00	6,643 84	37	446 49
10	85	1,100 00	4,285 27	110 00	50 42	5,385 27	6,533 47	14	126 06
9	56	950 00	2,839 50	105 56	50 70	3,789 50	4,841 71	24	222 00
9	9	356 00	315 00	39 56	35 00	671 00	806 30	.....	.....
20	80	2,341 50	4,477 50	117 07	55 97	6,819 00	9,816 27	.....	.....
9	10	585 00	450 00	65 00	45 00	1,035 00	1,325 36	1	.....
36	144	3,025 08	7,765 21	84 03	53 92	10,790 29	18,991 28	25	246 10
20	280	2,600 00	14,779 20	130 00	52 78	17,379 20	25,130 72	66	1,508 62
14	13	800 00	540 00	57 14	41 54	1,340 00	2,107 30	4	.....
9	9	495 00	360 00	55 00	40 00	855 00	1,200 73	2	8 50
10	116	1,000 00	5,300 50	100 00	45 66	6,300 50	10,535 16	8	157 78
60	320	6,100 00	16,230 00	101 66	50 72	22,330 00	42,039 30	39	638 00
10	150	1,200 00	6,712 50	120 00	44 75	7,912 50	36,477 82	62	1,184 64
20	70	1,835 00	3,570 00	91 75	31 00	5,405 00	6,604 51	33	410 66
8	9	385 00	322 00	48 12	35 78	707 00	7,047 11	7	39 65

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Chikaming Tp. 3	Berrien	103	63	170	70	$1,600			2
China Tp. 4	St. Clair	79	55	180	90	1,600		1	1
Clare	Clare	420	360	200	89	30,000		1	11
Clarkston	Oakland	131	90	200	79	2,000		1	3
Clarksville	Ionia	122	100	180	87	5,000		1	2
Clayton	Lenawee	92	64	180	59	10,500	$8,000 00	1	2
Climax	Kalamazoo	115	119	180	88	6,500		1	4
Clinton	Lenawee	187	143	190	93	20,000	9,928 09	1	6
Clio	Genesee	217	183	200	83		450 00	1	6
Coldwater	Branch	1,289	1,039	190	96	100,000		5	34
Coleman	Midland	382	374	200	61	12,000		1	8
Coloma	Berrien	196	201	180	85	10,000	600 00	1	6
Colon	St. Joseph	205	200	180	92	30,000	11,750 00	2	6
Columbiaville	Lapeer	96	96	160	91	16,000		1	4
Comstock	Kalamazoo	322	244	180	94	10,000	2,132 86	2	7
Concord	Jackson	137	117	190	94	9,000		1	5
Conklin	Ottawa	98	80	180	90	1,600	150 00		2
Constantine	St. Joseph	242	246	190	91	25,000	302 01	1	8
Coopersville	Ottawa	240	206	190	94	19,300	14,000 00	2	5
Copemish	Manistee	143	129	180	76	10,000	6,000 00	1	2
Coral	Montcalm	129	92	180	90	8,000	1,000 00	1	2
Corunna	Shiawassee	371	348	200	95	40,000	15,650 00	1	13
Covert	Van Buren	179	117	180	89	3,000		1	5
Croswell	Sanilac	414	417	196	98	32,000	20,000 00	2	9
Crystal	Montcalm	101	77	180	92	6,000	2,500 00	2	1
Crystal Falls	Iron	1,584	1,250	193	87	130,000	41,000 00	4	39
Cumming Tp. 3	Ogemaw	107	88	180	65	1,600		1	1
Custer	Mason	108	69	180	91	3,000		1	2
Dansville	Ingham	91	90	196	91	4,000	600 00	1	4
Davison	Genesee	190	159	200	99	10,000		2	4
Dearborn	Wayne	358	287	200	73	30,000		2	7
Decatur	Van Buren	367	335	187	85	15,000		2	7
Deckerville	Sanilac	193	179	190	77	15,000	9,000 00	1	4
Deerfield	Lenawee	185	149	180	95	10,000		1	4
Detour	Chippewa	327	298	200	95	5,000		1	5
Detroit	Wayne	109,231	70,219	200	95	5,960,747		121	1,379
Dewitt	Clinton	110	85	178	98	6,000		1	2
Dexter	Washtenaw	221	187	192	66	20,000		1	9
Dimondale	Eaton	97	70	195	97	2,200		1	3
Dorr	Allegan	102	75	180	82	6,500	4,560 00	1	1
Douglas	Allegan	138	115	179	78	7,000		1	3
Dowagiac	Cass	1,214	1,060	190	95	75,000	13,100 00	5	26
Dryden	Lapeer	129	99	188	85	10,000	5,000 00	1	2
Dundee	Monroe	289	254	180	83	20,000		1	7
Durand	Shiawassee	549	514	200	80	27,000		2	12
East Grand Rapids	Kent	175	128	200	72	6,000	3,301 35		7
East Jordan	Charlevoix	943	671	190	75	34,878	18,850 11	2	19
East Lansing	Ingham	168	144	180	87	14,300	10,612 50	1	3
East Tawas	Iosco	503	413	200	95	30,000	15,643 15	2	9
Eaton Rapids	Eaton	419	350	200	96	35,000		2	15
Eau Claire	Berrien	111	92	180	90	6,000		2	2
Ecorse Tp. 1	Wayne	488	290	200	74	21,000	4,000 00	1	9
Ecorse Tp. 3	Wayne	305	239	200	86	12,000		4	5
Ecorse Tp. 12	Wayne	230	188	200	67	12,000	10,000 00	1	4
Edenville	Midland	96	61	180	69	2,000		1	1
Edmore	Montcalm	256	211	190	81	9,000		1	5
Edwardsburg	Cass	107	91	180	85	3,000		1	3
Elk Rapids	Antrim	513	465	189	95	30,000		2	16
Elkton	Huron	262	232	200	85	15,000	5,000 00	1	5
Elk Tp. 4 fr.	Sanilac	90	77	200	60	1,000			2

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
.....	17	.....	$800 00	.....	$47 06	$800 00	$972 15	.....	.....
9	9	$540 00	333 00	$60 00	37 00	873 00	1,042 92	1	$15 00
10	110	1,000 00	4,995 88	100 00	49 05	5,995 88	8,495 01	49	327 55
10	30	1,000 00	1,375 00	100 00	45 83	2,375 00	3,023 96	28	293 88
9	18	630 00	900 00	70 00	50 00	1,530 00	2,939 91	12	69 00
9	18	675 00	765 00	75 00	42 50	1,440 00	6,570 12	16	138 00
9	36	650 00	1,710 00	72 22	47 50	2,360 00	3,462 55	10	152 15
10	57	950 00	2,489 00	95 00	43 67	3,439 00	5,311 51	47	474 05
10	60	900 00	2,975 00	90 00	66 25	3,875 00	5,542 61	41	305 15
38	323	5,075 00	17,435 43	133 55	53 98	22,510 43	33,981 40	60	1,450 50
10	80	900 00	3,375 00	90 00	42 18	4,275 00	5,337 19	12	96 50
9	54	765 00	2,475 00	85 00	45 83	3,240 00	4,059 48	28	419 88
18	54	1,060 00	2,385 00	58 89	44 16	3,445 00	5,493 34	22	178 88
10	34	1,000 00	1,610 00	100 00	47 35	2,610 00	3,684 63	22	138 25
16	61	792 00	2,258 25	49 50	37 02	3,050 25	5,174 42	7	72 00
10	38	810 00	1,935 00	81 00	50 92	2,745 00	3,639 42	32	278 33
.....	18	.....	900 00	.....	50 00	900 00	1,240 07	4	51 00
10	76	1,200 00	4,125 00	120 00	54 27	5,325 00	7,972 83	30	387 00
19	43	1,275 00	1,873 25	67 10	43 56	3,148 25	5,917 64	48	571 01
9	18	450 00	740 00	50 00	41 11	1,190 00	7,134 09	6	.....
9	18	540 00	720 00	60 00	40 00	1,260 00	1,820 74	13	89 59
10	114	1,300 00	5,865 00	130 00	51 44	7,165 00	11,114 18	32	537 50
9	45	699 93	1,675 00	77 44	37 22	2,374 93	3,187 32	10	60 75
20	90	1,750 00	4,700 00	87 50	52 22	6,450 00	18,867 86	45	474 26
18	9	855 00	270 00	47 50	30 00	1,125 00	4,184 60	15	82 63
35	388	4,302 00	21,121 15	122 91	54 43	25,423 15	47,523 20	3	.....
9	9	360 00	360 00	40 00	40 00	720 00	946 02	.....	.....
9	18	540 00	720 00	60 00	40 00	1,260 00	1,472 45	.....	.....
10	30	700 00	1,200 00	70 00	40 00	1,900 00	2,671 30	16	93 20
20	40	1,400 00	1,600 00	70 00	40 00	3,000 00	3,812 89	34	426 45
20	70	1,400 00	2,600 00	70 00	37 14	4,000 00	5,999 99	15	171 00
19	66	1,427 50	3,063 00	75 13	46 41	4,490 50	6,294 67	37	450 68
9	38	900 00	1,757 50	100 00	46 25	2,657 50	4,003 60	25	271 55
9	36	800 00	1,485 00	88 89	41 25	2,285 00	2,916 64	18	106 50
10	50	800 00	2,237 25	80 00	44 74	3,037 25	4,562 59	.....	.....
210	13,790	188,550 00	1,151,473 14	155 82	83 50	1,340,023 14	2,229,627 69	301	.....
9	18	585 00	765 00	65 00	42 50	1,350 00	2,094 27	11	97 80
10	70	950 00	3,460 00	95 00	49 43	4,410 00	5,578 79	44	684 03
10	28	585 00	1,316 25	58 50	47 00	1,901 25	2,365 58	13	106 00
9	9	500 00	333 00	55 56	37 00	833 00	1,914 95	8	70 50
9	27	720 00	1,260 00	80 00	46 67	1,980 00	2,511 13	6	.....
46	247	4,600 00	12,537 00	100 00	50 75	17,137 00	25,962 51	53	487 60
10	20	700 00	850 00	70 00	42 50	1,550 00	3,331 13	14	87 20
9	63	855 00	2,952 00	95 00	46 85	3,807 00	5,215 54	27	401 50
20	120	2,000 00	5,712 50	100 00	47 60	7,712 50	14,464 18	24	352 38
.....	50	.....	2,160 00	.....	43 20	2,160 00	3,301 35	5	34 00
19	167	1,762 50	8,458 75	92 76	50 65	10,221 25	16,244 38	25	53 37
9	24	675 00	1,025 00	75 00	42 70	1,700 00	13,593 39	5	35 10
20	90	1,525 00	3,885 50	76 25	43 17	5,410 50	8,633 68	12	91 50
20	150	1,750 00	6,925 00	87 50	46 13	8,675 00	11,347 79	66	870 71
18	18	1,240 00	787 50	68 89	43 75	2,027 50	2,750 34	30	211 00
10	85	1,000 00	4,745 00	100 00	55 82	5,745 00	9,554 00	.....	.....
20	40	1,282 00	1,776 50	64 10	44 41	3,058 50	4,168 35	7	29 89
10	40	600 00	1,282 00	60 00	32 05	1,882 00	3,670 41	.....	.....
9	9	495 00	360 00	55 00	40 00	855 00	1,108 92	.....	.....
10	47	1,000 00	2,213 50	100 00	47 08	3,213 50	4,102 99	24	147 25
9	27	855 00	1,170 00	95 00	43 33	2,025 00	2,535 14	24	181 70
19	147	1,989 72	7,473 75	104 20	50 84	9,463 47	12,759 01	16	220 09
10	50	1,000 00	2,200 00	100 00	44 00	3,200 00	4,573 78	26	318 45
.....	19	.....	775 00	.....	40 79	775 00	907 20	1	.....

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Elm Hall	Gratiot	89	76	180	72	$3,000		1	1
Elm River Tp	Houghton	237	208	200	72	7,000	$2,400 00	1	6
Elsie	Clinton	201	185	190	98	20,000	7,000 00	2	5
Empire	Leelanau	214	192	152	75	6,500		2	6
Escanaba	Delta	4,198	2,943	200	94	271,000	86,000 00	7	65
Essexville	Bay	512	102	200	96	10,000	1,000 00	1	4
Estey	Gladwin	86	73	180	65	1,400		1	1
Evart	Osceola	437	369	200	93	30,000	1,500 00	2	8
Fairgrove	Tuscola	124	107	200	87	4,500	1,200 00	1	3
Fair Haven	St. Clair	134	65	200	79	2,000			2
Falmouth	Missaukee	188	176	180	63	3,000	850 00	1	4
Farmington	Oakland	153	139	200	78	6,000		1	4
Farwell	Clare	214	214	180	71	15,000	8,000 00	2	4
Fennville	Allegan	218	164	180	95	8,000		1	4
Fenton	Genesee	504	503	200	96	65,000		2	14
Fife Lake	Grand Traverse	132	107	180	87	5,000		1	2
Filion	Huron	100	62	200	56	1,300		1	1
Fillmore Tp. 1	Allegan	131	94	180	77	2,000		1	2
Fillmore Tp. 2	Allegan	192	118	180	82	2,600	95 50		2
Flat Rock	Wayne	116	94	200	89	1,600		1	4
Flint	Genesee	6,637	4,672	200	93	400,000	176,000 00	5	100
Flushing	Genesee	189	171	200	92	15,000		2	4
Forest Tp	Cheboygan	371	323	186	58	9,700		1	13
Forest Grove	Ottawa	86	77	180	84	2,000	13 93	1	1
Forestville	Sanilac	94	86	143	67	1,200	45 23	1	1
Forsyth Tp	Marquette	561	471	191	78	50,060	33,514 00	1	16
Fostoria	Tuscola	101	82	200	80	3,600		1	2
Fowlerville	Livingston	210	175	200	94	20,000		2	6
Frankfort	Benzie	590	568	192	76	33,000	6,000 00	1	13
Freeport	Barry	135	128	180	95	7,000		2	3
Fremont	Newaygo	530	491	200	79	35,000	20,000 00	2	13
Frontier	Hillsdale	88	84	180	95	3,000		1	2
Fruitport	Muskegon	127	106	200	88	2,400		1	2
Gagetown	Tuscola	193	83	200	72	6,000	700 00	1	2
Gaines	Genesee	104	95	200	91			1	2
Galesburg	Kalamazoo	175	154	180	95	15,000		4	5
Galien	Berrien	143	114	180	79	5,000		1	4
Garfield Tp	Clare	83	67	180	62	1,500		1	2
Gaylord	Otsego	498	339	190	88	20,000	4,000 00	1	12
Gladstone	Delta	1,207	1,108	198	96	55,000	22,500 00	2	22
Gladwin	Gladwin	285	232	200	79	21,000	15,000 00	1	6
Gobleville	Van Buren	167	130	176	88	15,000	8,000 00	2	4
Graafschap	Allegan	134	87	180	86	2,000			2
Grand Blanc	Genesee	135	113	200	85	7,000	1,600 00	2	1
Grand Haven	Ottawa	1,639	1,192	200	98	90,000	30,000 00	3	32
Grand Junction	Van Buren	92	68	179	74	2,500		1	1
Grand Ledge	Eaton	674	543	185	77	25,000	1,000 00	2	14
Grand Rapids	Kent	29,626	16,029	200	80	2,264,800	508,000 00	32	457
Grandville	Kent	329	310	200	76	25,000	15,000 00	1	6
Grant	Newaygo	158	107	190	77	5,000	600 00	1	2
Grass Lake	Jackson	207	187	200	93	1,500		1	8
Grattan	Kent	90	65	180	63	1,400		1	1
Grayling	Crawford	602	481	200	92	18,000	2,000 00	1	11
Green Tp	Alpena	252	205	160	80				7
Greenville	Montcalm	929	690	200	92	75,000	18,500 00	1	23
Grindstone City	Huron	152	119	200	80	8,000	4,400 00	1	2
Grosse Isle	Wayne	260	172	200	66	14,000		1	4
Grosse Point Tp. 1	Wayne	354	173	200	71	34,975	28,000 00		5
Hadley	Lapeer	104	95	190	93	3,500		1	2
Hale	Iosco	142	112	180	78	2,500	400 00	1	2

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9	9	$540 00	$301 50	$60 00	$33 50	$841 50	$1,090 18	9	$49 50
10	60	1,000 00	3,250 00	100 00	54 16	4,250 00	8,304 66	.....	.....
19	48	1,390 00	2,185 00	73 16	45 52	3,575 00	5,175 12	37	347 60
8	45	758 25	2,074 50	94 78	46 10	2,832 75	3,806 59	5	47 00
70	650	8,284 50	32,753 67	118 35	50 39	41,038 17	61,997 81	37	855 89
10	40	850 00	2,150 00	85 00	53 75	3,000 00	5,984 84	.....	.....
9	9	360 00	360 00	40 00	40 00	720 00	1,542 76	.....	.....
20	80	2,000 00	4,202 50	100 00	52 53	6,202 50	10,535 24	40	299 00
10	30	700 00	1,200 00	70 00	40 00	1,900 00	2,304 25	19	139 15
.....	20	.....	1,075 00	.....	53 75	1,075 00	1,166 51	.....	.....
6	26	412 50	1,156 50	68 75	44 48	1,569 00	2,252 09	2	4 32
10	40	750 00	1,550 00	75 00	38 75	2,300 00	3,290 69	20	372 50
18	36	1,215 00	1,530 00	67 50	42 50	2,745 00	3,783 82	8	64 90
9	30	900 00	1,755 00	100 00	48 75	2,655 00	4,284 25	23	197 71
20	140	2,400 00	7,053 13	120 00	50 37	9,453 13	12,857 96	85	1,210 20
9	18	630 00	810 00	70 00	45 00	1,440 00	1,987 72	7	72 42
10	3	600 00	105 00	60 00	35 00	705 00	953 20	.....	.....
9	9	540 00	360 00	60 00	40 00	900 00	1,209 38	3	.....
.....	18	.....	873 00	.....	48 50	873 00	1,524 96	6	.....
10	40	800 00	1,850 00	80 00	46 25	2,650 00	3,297 14	27	356 41
50	1,000	7,100 00	57,503 53	142 00	57 50	64,603 53	122,474 72	112	2,119 10
20	40	1,725 00	1,650 00	86 25	43 12	3,375 00	4,865 65	50	615 60
10	95	975 00	3,390 00	97 50	35 68	4,365 00	5,467 29	4	.....
9	9	495 00	315 00	55 00	35 00	810 00	1,042 90	.....	.....
7	7	574 00	215 00	82 00	30 71	789 00	1,084 62	.....	.....
10	137	1,500 00	7,370 00	150 00	53 79	8,870 00	21,298 02	1	.....
10	20	600 00	750 00	60 00	37 50	1,350 00	2,087 72	19	114 75
20	60	1,450 00	2,850 00	72 50	47 50	4,300 00	5,700 58	47	597 50
10	130	1,300 00	6,175 00	130 00	47 46	7,475 00	11,370 52	17	110 00
18	27	1,215 00	1,215 00	67 50	45 00	2,430 00	3,588 52	13	184 00
20	130	1,700 00	5,525 07	85 00	42 50	7,225 07	31,788 00	46	492 66
9	18	495 00	720 00	55 00	40 00	1,215 00	2,137 42	22	119 00
10	20	700 00	850 00	70 00	42 50	1,550 00	2,393 55	1	15 50
10	20	650 00	685 00	65 00	34 25	1,335 00	1,667 00	6	46 00
10	20	750 00	750 00	75 00	37 50	1,500 00	2,414 18	36	309 44
32	35	1,909 05	1,642 50	59 65	46 92	3,551 55	4,665 08	31	305 70
9	27	774 99	1,282 50	86 11	47 50	2,057 49	2,482 59	14	187 75
9	9	440 00	340 00	48 89	37 78	780 00	1,621 96	.....	.....
10	103	1,100 00	5,544 84	110 00	53 83	6,644 84	9,905 23	33	224 00
20	220	2,200 00	11,925 00	110 00	54 18	14,125 00	21,523 33	4	.....
10	60	800 00	2,500 00	80 00	41 66	3,300 00	5,700 70	20	363 95
14	31	1,112 50	1,385 00	79 46	44 67	2,497 50	3,516 08	37	287 00
.....	18	.....	945 00	.....	52 50	945 00	1,223 31	17	.....
20	10	1,050 00	450 00	52 50	45 00	1,500 00	3,220 64	16	165 50
30	320	3,200 00	15,347 50	106 66	47 96	18,547 50	27,906 57	31	507 94
9	9	495 00	405 00	55 00	45 00	900 00	1,202 27	4	17 57
19	133	2,200 00	6,825 00	115 78	51 31	9,025 00	13,202 62	55	709 51
320	4,570	49,900 00	357,955 87	155 93	78 33	407,855 87	945,923 19	82	2,723 66
10	60	900 00	2,525 00	90 00	42 08	3,425 00	19,054 59	19	370 00
9	19	712 50	855 00	79 17	45 00	1,567 50	2,192 11	11	71 00
10	70	900 00	2,750 00	90 00	39 28	3,650 00	5,038 08	35	348 00
9	9	650 00	360 00	72 22	40 00	1,010 00	1,145 45	2	4 25
10	106	1,100 00	5,190 00	110 00	48 96	6,290 00	10,314 93	7	.....
.....	56	.....	1,960 00	.....	35 00	1,960 00	4,063 06	.....	.....
10	220	1,400 00	10,731 00	140 00	48 70	12,131 00	19,331 08	38	853 40
10	20	800 00	850 00	80 00	42 50	1,650 00	2,704 73	10	.....
10	40	1,000 00	2,025 00	100 00	50 62	3,025 00	4,097 38	.....	.....
.....	50	.....	2,564 90	.....	51 30	2,564 90	6,837 48	.....	.....
9	19	700 00	760 00	77 78	82 10	1,460 00	1,914 28	25	245 60
9	18	650 00	765 00	72 22	42 50	1,415 00	2,014 19	9	45 09

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Halfway	Macomb	139	53	200	70	$3,200	$143 75	.....	2
Hamilton	Allegan	134	92	180	78	7,000	3,000 00	1	1
Hamtramck	Wayne	1,238	682	200	92	50,000	27,000 00	1	15
Hamtramck Tp. 3	Wayne	139	91	200	80	2,500	660 00	.....	3
Hamtramck Tp. 5	Wayne	281	159	200	75	15,300	14,300 00	1	4
Hancock	Houghton	2,639	1,513	197	97	206,687	27,000 60	6	34
Hanover	Jackson	108	90	200	91	5,000	.....	1	4
Harbor Beach	Huron	495	351	200	88	30,000	11,000 00	1	10
Harbor Springs	Emmet	883	468	190	82	20,000	6,000 00	2	13
Harrietta	Wexford	139	119	180	86	4,000	.....	1	3
Harrison	Clare	272	219	180	85	3,000	.....	3	2
Harrisville	Alcona	178	154	180	78	5,000	.....	1	3
Hart	Oceana	499	432	190	95	2,500	.....	4	14
Hartford	Van Buren	365	287	180	88	15,000	4,000 00	1	9
Haslett	Ingham	86	68	180	87	9,000	500 00	1	2
Hastings	Barry	903	925	195	96	65,000	.....	4	23
Hematite Tp	Iron	260	255	200	67	30,000	5,000 00	1	9
Hersey	Osceola	124	105	186	93	5,000	.....	1	4
Hesperia	Newaygo	155	153	180	80	6,000	.....	1	6
Highland Park	Wayne	875	536	200	79	60,000	53,850 00	1	19
Hillman	Montmorency	288	237	180	80	3,000	.....	2	5
Hillsdale	Hillsdale	1,372	1,225	190	96	160,000	49,278 93	4	31
Holland	Ottawa	3,064	2,192	187	96	180,000	30,000 00	4	50
Holland Tp. 3	Ottawa	129	95	200	87	3,000	.....	1	1
Holland Tp. 4	Ottawa	84	42	200	90	2,000	.....	1	1
Holland Tp. 6	Ottawa	121	99	180	60	2,500	350 00	.....	2
Holland Tp. 9	Ottawa	142	113	200	75	10,000	6,000 00	1	2
Holland Tp. 11 fr	Ottawa	94	69	183	81	2,500	685 24	2	.....
Holly	Oakland	416	321	200	96	18,500	.....	1	9
Holt	Ingham	116	98	180	75	3,000	.....	1	3
Holton	Muskegon	101	106	180	65	2,000	.....	1	1
Homer	Calhoun	226	161	180	97	12,000	2,400 00	1	8
Honor	Benzie	278	238	180	88	5,400	1,100 00	3	5
Horton	Jackson	70	59	190	89	5,000	150 00	1	3
Houghton	Houghton	2,707	1,824	200	81	225,000	47,500 00	9	65
Howard City	Montcalm	302	309	190	82	5,000	.....	1	8
Howell	Livingston	537	523	200	88	35,600	.....	1	18
Hubbard Lake	Alpena	311	182	200	59	3,500	.....	.....	5
Hubbardston	Ionia	133	103	180	92	4,500	.....	1	2
Hudson	Lenawee	562	446	190	97	27,500	.....	3	15
Hudsonville	Ottawa	198	168	180	80	10,000	7,200 00	1	2
Hume Tp. 1	Huron	76	61	192	57	1,500	.....	1	.....
Imlay City	Lapeer	331	265	200	94	20,000	4,000 00	1	8
Ionia	Ionia	1,264	809	200	97	100,000	11,278 27	4	30
Iron Mountain	Dickinson	3,299	2,683	190	95	300,000	31,000 00	5	65
Iron River	Iron	860	604	195	87	50,000	53,900 00	5	19
Ironwood	Gogebic	4,013	2,638	200	94	265,000	65,000 00	7	69
Ishpeming	Marquette	3,950	3,105	185	87	350,000	65,000 00	11	74
Ithaca	Gratiot	504	473	186	95	35,000	6,108 94	2	17
Jackson	Jackson	6,888	4,281	191	96	500,000	130,000 00	11	112
Jamestown	Ottawa	131	94	180	92	4,500	.....	1	2
Jennings	Missaukee	353	348	190	78	11,000	.....	1	8
Jerome	Hillsdale	87	62	180	87	8,000	4,649 67	1	2
Jonesville	Hillsdale	334	287	200	87	30,000	.....	1	8
Kalamazoo	Kalamazoo	8,739	6,293	183	94	784,316	273,000 00	24	188
Kalkaska	Kalkaska	362	366	180	74	25,000	1,000 00	2	10
Kendall	Van Buren	58	50	180	84	1,000	.....	.....	2
Kent City	Kent	161	142	180	93	8,600	.....	1	4
Kilmanagh	Huron	201	125	180	58	2,000	.....	.....	2
Kinde	Huron	174	152	200	59	2,000	1,207 77	1	1

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
.....	10	.....	$1,000 00	.....	$100 00	$1,000 00	$1,290 59	5	$20 19
9	9	$5 40	450 00	$60 00	50 00	990 00	1,553 05	1	3 91
10	130	1,250 00	7,200 00	125 00	55 37	8,450 00	13,318 27	11	25 33
.....	20	.....	1,125 00	.....	56 25	1,125 00	1,524 73	3	1 20
10	37	675 00	1,370 00	67 50	37 02	2,045 00	4,027 43	3	14 20
60	308	6,913 75	17,165 00	115 23	55 73	24,078 75	68,704 37	18	792 80
10	40	700 00	1,575 00	70 00	39 37	2,275 00	3,204 12	36	351 50
10	100	1,100 00	5,025 00	110 00	50 25	6,125 00	9,795 56	12	108 25
19	124	2,250 00	6,785 00	118 42	54 72	9,035 00	11,968 55	6	54 85
9	27	675 00	1,350 00	75 00	50 00	2,025 00	2,465 56	3	5 00
27	15	1,510 00	615 00	56 93	41 00	2,125 00	2,694 71	16	25 50
9	27	675 00	1,282 50	75 00	47 50	1,957 50	2,270 82	18	30 00
38	114	2,459 95	5,447 22	64 73	52 16	7,907 17	13,329 59	68	621 55
9	81	800 00	3,805 00	88 89	46 97	4,605 00	8,281 75	65	1,016 35
9	18	540 00	720 00	60 00	40 00	1,260 00	1,742 60	6	60 85
40	230	4,100 00	14,413 30	102 50	62 67	18,513 30	26,000 28	87	1,818 48
10	80	1,100 00	4,642 50	110 00	58 03	5,742 50	11,710 82	.....	.....
9	38	700 00	1,615 00	77 78	42 50	2,315 00	3,078 44	11	57 75
9	46	810 00	1,937 00	90 00	42 11	2,747 00	3,735 10	18	136 35
10	134	1,450 00	8,557 50	145 00	63 86	10,007 50	53,699 36	10	143 65
18	45	855 00	1,495 00	47 50	33 22	2,350 00	3,775 26	2	.....
38	295	3,950 00	14,800 24	103 95	50 17	18,750 24	30,660 90	107	1,485 90
40	500	3,400 00	26,429 17	85 00	52 80	29,829 17	70,642 54	.....	122 63
10	10	650 00	425 00	65 00	42 50	1,075 00	1,619 90	.....	.....
9	10	540 00	350 00	60 00	35 00	890 00	1,093 65	.....	.....
.....	18	.....	792 00	.....	42 89	792 00	1,222 15	.....	.....
10	20	700 00	775 00	70 00	38 75	1,475 00	2,360 69	.....	.....
18	.....	810 00	.....	45 00	.....	810 00	1,055 93	6	.....
10	90	1,000 00	4,171 88	100 00	46 34	5,171 88	6,445 84	34	432 70
9	18	540 00	621 25	60 00	34 51	1,161 25	1,336 35	8	71 50
9	9	540 00	405 00	60 00	45 00	945 00	1,144 27	1	.....
9	72	900 00	4,075 00	100 00	56 60	4,975 00	6,636 50	14	205 39
18	36	1,382 00	1,542 50	76 78	42 84	2,924 50	5,566 09	17	68 50
9	29	900 00	1,176 00	100 00	40 55	2,076 00	2,585 56	13	96 50
90	510	10,388 50	30,318 17	115 43	59 44	40,706 67	73,212 05	5	293 75
10	76	1,000 00	3,519 75	100 00	46 31	4,519 75	6,539 56	20	210 00
10	180	1,400 00	8,207 50	140 00	45 59	9,607 50	14,562 31	80	1,106 50
.....	48	.....	2,220 00	.....	46 25	2,220 00	2,983 94	.....	.....
9	18	585 00	810 00	65 00	45 00	1,395 00	1,787 06	17	105 50
29	142	2,800 00	7,014 25	96 55	49 49	9,814 25	12,409 72	67	746 80
9	18	720 00	630 00	80 00	35 00	1,350 00	9,942 60	12	75 85
10	.....	650 00	.....	65 00	.....	650 00	841 08	1	.....
10	78	1,000 00	3,360 00	100 00	43 07	4,360 00	7,210 72	46	633 20
30	300	3,950 00	16,205 88	131 66	54 01	20,155 88	33,015 76	125	1,636 30
48	617	7,715 00	37,320 54	160 73	60 48	45,035 54	85,089 00	20	.....
37	189	3,196 25	9,683 00	86 38	51 23	12,879 25	29,788 99	3	50 60
70	690	8,500 00	39,906 08	121 42	57 83	48,406 08	96,171 28	7	203 50
104	703	12,950 00	44,654 87	124 52	63 52	57,604 87	99,554 06	.....	.....
19	162	1,435 00	7,307 50	75 55	45 10	8,742 50	12,921 75	76	831 17
110	1,064	14,500 00	66,789 27	131 82	62 77	81,289 27	132,680 41	97	1,598 10
9	18	585 00	630 00	65 00	35 00	1,215 00	2,257 98	18	159 16
10	76	900 00	3,681 25	90 00	48 43	4,581 25	6,974 45	.....	.....
9	18	540 00	720 00	60 00	40 00	1,260 00	2,680 79	2	12 00
10	80	925 00	3,800 00	92 50	47 50	4,725 00	6,121 95	44	339 25
228	1,538	25,265 53	105,931 00	110 81	68 87	131,196 53	231,971 69	118	2,399 20
18	90	1,650 00	4,120 00	91 67	45 78	5,770 00	8,217 87	13	178 50
.....	18	.....	675 00	.....	37 50	675 00	778 32	.....	.....
9	28	800 00	1,182 00	88 89	42 21	1,982 00	2,621 41	33	369 22
.....	18	.....	927 00	.....	51 50	927 00	1,216 25	5	2 19
10	10	700 00	450 00	70 00	45 00	1,150 00	1,499 06	4	10 50

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Kingsley	Grand Traverse	206	184	180	67	$7,000	$300 00	1	4
Kingston	Tuscola	143	120	200	80	7,000	1,585 62	1	2
Kochville Tp. 6 fr	Saginaw	114	65	180	69	1,600		1	1
Laingsburg	Shiawassee	139	139	198	92	5,000		2	3
Lake Ann	Benzie	89	80	180	62	4,000			2
Lake City	Missaukee	286	286	180	84	17,000	6,701 29	1	8
Lake Linden	Houghton	1,894	718	196	89	35,000		4	28
Lake Odessa	Ionia	324	283	187	95	15,000		2	9
Lakeview	Montcalm	308	273	190	93	3,000		3	5
L'Anse	Baraga	653	520	200	90	44,951	17,000 00	3	13
Lansing	Ingham	6,001	4,874	190	96	289,055	50,000 00	7	117
Lapeer	Lapeer	657	594	197	93	30,000		2	17
Lawrence	Van Buren	197	163	180	93	10,000		1	8
Lawton	Van Buren	238	203	180	97	13,000	3,000 00	2	5
Lennon	Shiawassee	94	74	200	75	2,000		1	3
*Lenox	Macomb								
Leonard	Oakland	131	101	200	73	5,000		1	2
LeRoy	Osceola	165	134	180	87	5,000		2	4
Leslie	Ingham	245	203	200	89	18,000		2	7
Levering	Emmet	117	108	180	85	3,000	1,000 00	1	3
Lexington	Sanilac	143	112	200	86	10,000		1	4
Lincoln Tp. 2	Huron	88	74	200	66	1,200			2
Lincoln Tp. 4	Berrien	121	68	160	74	4,000			3
Linden	Genesee	146	138	200	88	7,000		2	3
Lisbon	Ottawa	96	80	180	67	3,000			2
Litchfield	Hillsdale	153	135	180	94	10,000		2	5
Lowell	Kent	483	436	200	77	18,000		1	16
Lucas	Missaukee	130	111	180	73	1,400		1	1
Ludington	Mason	2,902	1,751	190	95	275,000	27,000 00	4	50
Luther	Lake	240	188	190	90	15,500	6,000 00	1	4
Lyons	Ionia	165	144	180	92	3,000		1	5
Mackinac Island	Mackinac	184	137	180	83	10,000		1	3
Mackinaw City	Cheboygan	209	172	200	73	6,500		2	2
Macomb Tp. 2 fr	Macomb	101	31	180	55	750		1	
Mancelona	Antrim	488	557	180	71	27,337		3	14
Manchester	Washtenaw	295	278	200	86	2,000		1	11
Manistee	Manistee	3,943	2,146	209	96	140,000		5	70
Manistique	Schoolcraft	1,469	997	200	95	80,000		3	29
Manton	Wexford	368	392	180	82	25,000	5,000 00	1	11
Maple Rapids	Clinton	132	109	190	92	3,000		1	3
Marcellus	Cass	220	198	178	93	18,500		1	7
Marine City	St. Clair	1,056	558	200	93	60,000	8,000 00	3	15
Marion	Osceola	253	222	190	89	9,300	152 16	2	7
Marion Tp. 4 fr	Sanilac	82	73	200	58	2,000	511 57	1	1
Marlette	Sanilac	311	282	200	95	20,000	5,500 00	2	9
Marquette	Marquette	3,307	2,263	200	84	298,250	70,000 00	7	56
Marshall	Calhoun	942	739	200	95	125,000	2,000 00	3	27
Martin	Allegan	118	111	180	76	15,000	7,300 00	1	3
Marysville	St. Clair	127	71	190	74	1,000		2	1
Mason	Ingham	385	399	200	94	35,000	13,750 00	1	13
Masonville Tp	Delta	656	494	183	85	51,500	19,255 84	1	15
Matchwood Tp	Ontonagon	158	125	180	85	12,000	2,000 00	1	6
Mattawan	Van Buren	212	164	180	74	6,500		1	7
Mayville	Tuscola	217	175	200	95	11,000		1	4
McBain	Missaukee	237	240	180	68	6,000		1	8

*Included in Richmond.

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9	36	$900 00	$1,575 00	$100 00	$43 75	$2,475 00	$3,288 24	8	$59 70
10	20	500 00	750 00	50 00	37 50	1,250 00	2,019 45	9	65 75
9	9	495 00	342 00	55 00	38 00	837 00	1,018 86	.....	.....
20	30	1,250 00	1,325 00	62 50	44 16	2,575 00	3,621 06	20	247 00
.....	18	.....	900 00	.....	50 00	900 00	1,139 98	.....	.....
9	54	810 00	2,570 05	90 00	47 59	3,380 05	5,104 88	18	40 00
40	268	4,700 00	16,314 52	117 50	60 88	21,014 52	33,095 57	8	840 00
19	85	1,575 00	3,662 25	82 89	43 08	5,237 25	6,757 75	45	570 08
29	47	2,375 00	1,895 25	81 89	40 32	4,270 25	5,335 88	55	522 70
30	120	2,950 00	6,200 00	98 33	51 67	9,150 00	13,460 94	.....	.....
67	1,111	8,200 00	59,565 81	122 38	53 61	67,765 81	196,234 59	110	1,163 12
20	169	2,250 00	9,150 00	112 50	54 14	11,400 00	15,316 62	56	369 60
9	63	900 00	3,060 00	100 00	48 57	3,960 00	4,971 12	46	683 67
18	45	1,650 00	1,912 50	91 66	42 50	3,562 50	5,947 24	47	333 50
6	14	360 00	632 00	60 00	45 14	992 00	1,245 72	15	120 39
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	20	600 00	725 00	60 00	36 25	1,325 00	1,885 96	1	.....
17	28	1,120 00	1,265 00	65 88	45 17	2,385 00	3,104 39	9	24 00
16	70	1,490 00	2,880 00	93 12	41 14	4,370 00	6,052 17	50	652 16
9	27	720 00	1,237 50	80 00	45 83	1,957 50	3,055 53	9	34 95
10	36	850 00	2,025 00	85 00	56 25	2,875 00	3,606 03	8	37 00
.....	10	.....	775 00	.....	77 50	775 00	1,001 98	8	27 15
.....	16	.....	828 75	.....	51 80	828 75	955 19	.....	.....
20	30	1,275 00	1,200 00	63 75	40 00	2,475 00	3,260 49	21	95 50
.....	18	.....	1,035 00	.....	57 50	1,035 00	1,209 80	12	54 25
18	27	1,250 00	1,330 00	69 44	49 26	2,580 00	3,136 05	51	378 00
10	149	1,200 00	6,275 00	120 00	42 11	7,475 00	10,858 72	59	880 71
9	9	540 00	405 00	60 00	45 00	945 00	1,281 77	2	.....
38	475	3,450 00	26,457 57	90 79	55 70	29,907 57	68,873 40	25	328 45
10	38	750 00	1,710 00	75 00	45 00	2,460 00	11,058 28	15	33 50
9	36	810 00	1,617 75	90 00	44 93	2,427 75	2,917 83	22	119 16
9	27	900 00	1,755 00	100 00	65 00	2,655 00	3,977 41	1	.....
20	20	1,350 00	1,050 00	67 50	52 50	2,400 00	2,916 67	7	.....
9	.....	450 00	.....	.....	50 00	450 00	602 88	.....	.....
27	117	2,500 00	6,247 34	92 59	53 39	8,747 34	16,424 86	21	151 72
10	99	1,000 00	4,248 75	100 00	42 91	5,248 75	6,665 60	45	538 04
50	700	6,152 31	40,866 75	123 04	58 38	47,019 06	65,425 96	61	961 80
30	290	3,400 00	16,754 98	113 33	57 77	20,154 98	41,787 01	24	320 65
9	99	1,000 00	4,410 00	111 11	44 54	5,410 00	7,283 83	32	400 70
9	29	850 00	1,400 00	94 44	48 28	2,250 00	3,507 29	14	136 56
10	66	1,000 00	3,063 75	100 00	46 42	4,063 75	5,695 66	30	260 60
30	150	2,740 00	6,560 00	91 33	43 73	9,300 00	13,437 05	13	110 00
19	64	1,570 00	3,134 37	82 63	48 97	4,704 37	6,300 53	18	113 65
10	3	650 00	75 00	65 00	25 00	725 00	1,591 04	.....	.....
20	80	1,700 00	3,940 00	85 00	49 25	5,640 00	7,586 04	49	657 38
70	560	9,250 00	39,107 38	132 14	69 83	48,357 38	81,506 03	.....	.....
30	270	3,450 00	13,154 23	115 00	48 71	16,604 23	22,554 83	65	1,290 18
9	27	750 00	1,260 00	83 33	46 67	2,010 00	8,357 82	17	120 69
10	9	685 00	332 50	68 50	36 94	1,017 50	1,262 03	.....	.....
10	130	1,100 00	6,795 00	110 00	52 27	7,895 00	11,217 27	51	615 37
10	141	1,200 00	6,485 00	120 00	45 99	7,685 00	15,900 03	.....	.....
9	54	720 00	2,354 50	80 00	43 60	3,074 50	5,898 95	.....	.....
6	57	300 00	2,200 00	50 00	38 59	2,500 00	2,973 59	2	5 50
10	40	800 00	1,875 00	80 00	46 88	2,675 00	3,610 88	34	190 00
9	54	700 00	2,428 87	77 78	44 98	3,128 87	3,863 00	3	10 00

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
McBride	Montcalm	130	105	190	86	$3,600		1	2
McMillan Tp	Luce	569	525	160	96	80,000	$30,000 00	4	18
McMillan Tp	Ontonagon	165	138	180	75	6,600		1	5
Mecosta	Mecosta	114	98	180	76	2,500		1	2
Memphis	Macomb	183	140	200	91	5,000		1	4
Mendon	St. Joseph	195	177	175	95	25,000	15,202 33	1	7
Menominee	Menominee	3,650	2,507	190	96	200,000	5,000 00	8	63
Menick	Wexford	197	152	180	84	4,000		1	3
Metamora	Lapeer	82	88	200	72	5,000		1	2
Michigamme	Marquette	259	180	200	94	10,000		1	7
Middleton	Gratiot	110	90	180	94	4,000		1	3
Middleville	Barry	220	200	200	87	10,000		3	7
Midland	Midland	617	678	187	93	65,000	40,000 00	1	17
Milan	Washtenaw	347	314	180	87	20,000	9,000 00	1	8
Milford	Oakland	247	196	200	95	16,000		1	7
Millbrook	Mecosta	85	82	180	65	6,047	2,330 00	1	1
Millburg	Berrien	129	111	180	80	2,500		1	2
Millersburg	Presque Isle	186	191	200	89	7,000	469 15	1	4
Millington	Tuscola	196	170	200	68	10,000	4,500 00	1	5
Minden City	Sanilac	181	116	180	77	2,500		1	2
Monroe	Monroe	1,875	855	183	92	47,700	59,500 00	4	24
Montague	Muskegon	226	181	175	92	20,000		2	6
Montgomery	Hillsdale	109	105	180	93	6,000	2,500 00	1	4
Montrose	Genesee	139	138	190	70	6,400	4,200 00	1	3
Morenci	Lenawee	330	288	180	97	38,000	26,000 00	1	9
Morley	Mecosta	131	107	180	80	4,000		1	2
Morrice	Shiawassee	123	109	198	93	7,500	500 00	1	4
Moscow	Hillsdale	69	60	172	67	1,000		1	2
Mt. Clemens	Macomb	2,287	1,274	200	95	175,000	30,000 00	4	35
Mt. Morris	Genesee	249	157	200	80	6,000		1	4
Mt. Pleasant	Isabella	1,001	501	190	94	54,000	17,500 00	6	14
Muir	Ionia	103	100	180	82	5,000		1	3
Mulliken	Eaton	102	99	180	76	3,000		1	2
Munising Tp	Alger	830	732	198	93	65,000	30,000 00	4	18
Muskegon	Muskegon	6,601	4,832	200	95	2,052,034	165,000 00	20	119
Muskegon Heights	Muskegon	391	304	200	94	30,000		1	10
Napoleon	Jackson	117	98	190	87	7,000		1	3
Nashville	Barry	298	269	200	95	30,000	4,000 00	2	8
Negaunee	Marquette	2,916	1,527	200	96	241,000	88,000 00	6	38
Newaygo	Newaygo	468	407	200	90	1,400		2	8
New Baltimore	Macomb	194	137	200	90	20,000		1	9
New Buffalo	Berrien	168	132	180	75	4,000		1	3
New Era	Oceana	163	129	180	85	5,000	400 00	1	2
New Haven	Macomb	135	123	176	78	3,000		1	2
New Holland	Ottawa	137	87	200	84	2,000		1	1
New Hudson	Oakland	48	39	180	77	3,000	5 77	1	1
New Troy	Berrien	206	172	180	74	3,000		1	3
Niles	Berrien	1,270	1,006	188	95	85,000		2	27
Noordeloos	Ottawa	116	75	200	91	2,000		1	1
North Adams	Hillsdale	117	113	185	92	10,000	197 43	3	5
North Branch	Lapeer	191	170	197	90	10,000	500 00	1	8
North Muskegon	Muskegon	105	90	200	62	12,000	712 93		2
Northport	Leelanau	216	204	180	74	8,000		1	5
North Star	Gratiot	102	70	190	84	3,500		1	1
Northville	Wayne	426	314	200	92	32,000	2,800 00	2	13
Norway	Dickinson	1,816	1,278	188	95	100,000	54,050 00	2	33
Nunica	Ottawa	124	97	180	97	2,000		1	3
Oakley	Saginaw	73	68	180	70	1,200		2	1
Okemos	Ingham	114	95	180	85	3,000		1	2
Olivet	Eaton	183	162	189	88	10,000		1	8

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9	19	$712 50	$760 00	$79 16	$40 00	$1,472 50	$1,906 48	6	$57 75
28	152	2,842 50	7,919 00	101 52	53 09	10,761 50	24,368 19	15	153 35
9	45	765 00	1,755 00	85 00	39 00	2,520 00	4,707 19	.....	.....
9	18	585 00	720 00	65 00	40 00	1,305 00	1,714 39	2	2 00
10	40	800 00	1,850 00	80 00	46 25	2,650 00	3,737 71	31	292 01
9	63	1,000 00	2,938 00	111 11	46 63	3,938 00	5,999 85	60	724 90
66	542	9,970 00	34,068 09	151 06	62 86	44,038 09	61,520 55	7	133 50
9	27	630 00	1,260 00	70 00	46 67	1,890 00	2,206 87	2	18 25
10	20	725 00	950 00	72 50	47 50	1,675 00	1,971 53	6	74 25
10	70	1,100 00	3,325 00	110 00	47 50	4,425 00	7,130 98	4	15 00
9	18	675 00	675 00	75 00	37 50	1,350 00	2,130 85	3	28 00
20	70	1,505 99	2,612 29	75 30	37 32	4,118 28	5,254 59	29	333 40
9	162	950 00	7,657 30	105 56	47 26	8,607 30	55,950 63	48	710 36
9	72	950 00	3,105 00	105 56	43 13	4,055 00	7,202 01	41	431 83
10	70	1,000 00	2,830 00	100 00	40 43	3,830 00	5,152 24	58	418 35
9	9	540 00	349 38	60 00	38 82	889 38	6,831 13	7	37 50
9	18	585 00	720 00	65 00	40 00	1,305 00	1,665 55	2	27 00
10	40	700 00	1,600 00	70 00	40 00	2,300 00	3,284 99	9	12 00
10	48	800 00	2,055 00	80 00	42 81	2,855 00	3,971 58	47	395 80
9	18	675 00	765 00	75 00	42 50	1,440 00	1,848 45	5	.....
9	228	4,450 00	11,888 26	49 44	52 14	16,338 26	27,720 48	65	1,141 46
18	45	950 00	2,205 00	52 78	49 00	3,155 00	4,506 61	26	155 00
9	36	900 00	1,485 00	100 00	41 25	2,385 00	2,868 98	28	251 86
9	29	617 50	1,235 00	68 62	42 59	1,852 50	2,568 20	12	166 25
9	79	1,299 97	3,610 00	144 44	45 69	4,909 97	7,562 19	47	385 73
9	18	650 00	720 00	72 22	40 00	1,370 00	1,859 94	17	74 80
10	40	750 00	1,600 00	75 00	40 00	2,350 00	3,570 32	21	174 65
9	18	540 00	585 00	60 00	32 50	1,125 00	1,560 75	3	29 27
40	350	4,650 00	18,851 74	116 25	53 86	23,501 74	68,234 91	60	437 62
10	40	850 00	1,725 00	85 00	43 12	2,575 00	3,429 92	31	270 55
57	133	4,725 00	7,700 00	82 89	57 89	12,425 00	24,516 51	64	606 18
9	27	720 00	990 00	80 00	36 66	1,710 00	2,154 06	11	127 68
9	18	450 00	720 00	50 00	40 00	1,170 00	2,141 84	13	77 00
40	180	3,850 00	9,750 00	96 25	54 17	13,600 00	28,792 49	8	.....
200	1,190	23,937 50	75,847 68	119 69	63 73	99,785 18	171,447 54	48	867 98
10	100	1,000 00	4,539 37	100 00	45 39	5,539 37	9,517 80	16	99 83
9	29	700 00	1,200 00	77 78	41 38	1,900 00	2,496 64	16	146 94
20	80	1,550 00	3,515 68	77 50	43 95	5,065 68	7,714 38	26	446 79
60	380	6,955 00	22,815 00	115 91	60 04	29,770 00	78,920 23	4	80 00
20	80	1,500 00	3,500 00	75 00	43 75	5,000 00	6,390 65	6	71 28
10	77	1,000 00	3,600 00	100 00	46 75	4,600 00	5,821 67	21	138 20
9	27	800 00	1,260 00	88 89	46 67	2,060 00	2,759 35	7	88 86
9	18	585 00	792 00	65 00	44 00	1,377 00	2,050 83	6	60 00
9	18	630 00	855 00	70 00	47 50	1,485 00	2,010 53	11	78 00
10	10	725 00	425 00	72 50	42 50	1,150 00	1,512 43	.....	.....
9	9	495 00	270 00	55 00	30 00	765 00	852 40	2	12 17
9	27	720 00	1,260 00	80 00	46 67	1,980 00	2,739 14	13	61 50
19	257	2,700 00	13,526 00	142 10	52 63	16,226 00	21,866 14	49	545 94
9	10	540 00	400 00	60 00	40 00	940 00	1,254 12	1	.....
29	38	2,350 00	1,398 50	81 04	36 80	3,748 50	4,490 10	53	514 00
10	70	1,050 00	2,743 75	105 00	39 20	3,793 75	5,577 93	55	686 16
.....	20	.....	948 88	.....	47 44	948 88	1,628 63	.....	.....
9	45	900 00	1,974 00	100 00	43 87	2,874 00	6,588 74	11	271 80
10	9	617 50	380 00	61 75	42 22	997 50	4,755 94	11	41 00
20	115	1,600 75	5,055 52	80 03	43 96	6,656 27	8,782 58	31	444 30
19	314	2,600 00	18,600 00	136 84	59 23	21,200 00	40,573 07	10	210 00
9	18	600 00	720 00	66 67	40 00	1,320 00	1,756 69	20	194 73
9	9	509 00	225 00	56 56	25 00	734 00	851 40	4	11 00
9	18	675 00	728 00	75 00	40 45	1,403 00	1,868 97	5	42 00
9	67	800 00	3,054 00	88 89	45 58	3,854 00	5,074 60	40	440 34

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Omer	Arenac	186	163	188	76	$6,000		2	5
Onaway	Presque Isle	927	814	200	88	25,000	$6,500 00	2	19
Onekama	Manistee	138	122	180	72	3,500	355 18	1	2
Onondaga	Ingham	68	55	180	87	3,000		1	2
Ontonagon Tp	Ontonagon	721	536	200	91	50,000		1	23
Orion	Oakland	201	172	200	78	15,000		1	6
Ortonville	Oakland	125	104	200	87	1,500		1	2
Osceola Tp	Houghton	2,661	2,043	200	81	41,700	10,000 00	3	69
Oscoda	Iosco	425	295	200	94	5,000		1	6
Osseo	Hillsdale	75	54	180	82	2,000		1	2
Otisville	Genesee	136	109	200	90	2,000		1	2
Otsego	Allegan	726	590	118	85	37,500	4,750 00	2	17
Otter Lake	Lapeer	110	77	190	84	1,100		2	1
Overisel	Allegan	94	61	180	83	2,000		1	1
Ovid	Clinton	266	258	200	96	35,000	17,300 00	2	10
Owosso	Shiawassee	2,377	1,768	200	94	200,000	22,000 00	5	45
Oxford	Oakland	280	245	200	85	20,000		2	7
Palmyra	Lenawee	108	86	180	72	3,500		1	1
Palo	Ionia	78	70	200	94	4,000		1	2
Paris Tp. 1	Kent	177	107	180	76	3,000	203 10	1	2
Parma	Jackson	162	144	196	79	12,000		1	5
Paw Paw	Van Buren	401	322	186	96	12,000		2	9
Pellston	Emmet	406	409	180	60	30,000	16,375 00	1	10
Pentwater	Oceana	322	292	180	95	10,000		1	9
Perry	Shiawassee	192	164	200	89	12,000	4,425 00	2	5
Petersburg	Monroe	238	200	178	93	9,500		1	5
Petoskey	Emmet	1,409	1,092	180	95	60,000	15,000 00	5	27
Pewamo	Ionia	128	59	180	88	8,000	500 00	3	4
Pickford	Chippewa	185	145	200	90	5,000	3,000 00	1	2
Pierson	Montcalm	113	89	180	66	2,000		1	1
Pigeon	Huron	299	212	200	70	7,500		1	5
Pinckney	Livingston	130	91	200	96	12,000		2	6
Pinconning	Bay	342	216	200	88	20,000	12,000 00	2	8
Pine Run	Genesee	53	30	180	96	900			1
Pinnebog	Huron	122	94	200	96	2,250		1	1
Pittsford	Hillsdale	134	110	190	82	10,000		1	3
Plainfield Tp. 9 fr	Kent	165	147	200	67	9,000	5,000 00	1	3
Plainwell	Allegan	382	285	195	86	25,000	8,000 00	1	11
Plymouth	Wayne	481	449	200	82	35,000	8,000 00	3	17
Pontiac	Oakland	2,647	2,288	200	77	250,000	75,000 00	4	56
Port Austin	Huron	241	200	200	70	6,500		2	4
Port Hope	Huron	140	70	200	80	1,500		1	2
Port Huron	St. Clair	4,870	3,103	195	96	620,000		5	88
Portland	Ionia	350	336	175	98	25,000	1,000 00	2	11
Port Sanilac	Sanilac	111	85	180	91	2,000		1	2
Potterville	Eaton	146	132	180	77	8,500	8,000 00	1	3
Prescott	Ogemaw	161	129	180	80	1,000			2
Quincy	Branch	257	222	190	92	15,000	2,000 00	2	6
Rapid City	Kalkaska	112	94	180	99	8,000	2,000 00	1	3
Ravenna	Muskegon	176	152	180	93	3,000		3	6
Reading	Hillsdale	255	238	190	94	25,000	17,000 00	2	6
Reed City	Osceola	501	387	185	89	26,000		2	14
Reese	Tuscola	191	133	200	78	4,500		1	3
Remus	Mecosta	154	107	180	94	6,000	00 00	1	2
Republic Tp	Marquette	890	690	200	82	50,000	30,000 00	1	18
Richland	Kalamazoo	78	70	180	87	4,600	200 00	1	3
Richmond	Macomb	332	304	200	75	17,000	4,800 00	1	10
Riverdale	Gratiot	102	90	177	83	4,300	1,811 25	1	2
River Rouge	Wayne	1,269	1,010	200	73	175,000	143,600 00	3	31
Rochester	Oakland	380	308	200	80	21,000	4,000 00	1	7

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
11	29	$990 00	$1,147 00	$62 73	$39 55	$1,837 00	$2,824 98	3	.....
20	170	1,950 00	7,765 13	97 50	45 67	9,715 13	16,222 41	18	$31 00
9	18	700 00	710 00	77 78	39 45	1,410 00	1,940 21	4	28 50
9	18	500 00	690 00	55 56	38 33	1,190 00	1,444 50	28	118 00
10	226	1,500 00	12,575 00	150 00	55 64	14,075 00	16,912 74	1	.....
10	60	750 00	2,242 50	75 00	37 38	2,992 50	4,079 08	12	92 31
10	20	750 00	700 00	75 00	35 00	1,450 00	1,852 36	25	175 25
30	607	4,700 00	36,741 10	156 67	60 53	41,441 10	66,298 88	4	160 00
10	60	900 00	2,850 00	90 00	47 50	3,750 00	4,926 83	.....	.....
9	19	481 77	622 78	53 53	32 78	1,104 55	1,362 96	19	143 00
10	20	750 00	795 00	75 00	39 75	1,545 00	2,088 23	27	188 88
19	162	1,950 00	6,688 50	102 63	41 28	8,638 50	12,554 69	48	723 13
9	10	522 50	378 00	58 05	37 80	900 50	1,255 26	13	92 00
9	9	495 00	342 00	55 00	38 00	837 00	1,206 57	5	15 00
20	90	1,650 00	3,924 50	82 50	43 60	5,574 50	8,456 37	77	1,160 65
50	450	5,650 00	23,245 59	113 00	51 65	28,895 59	40,023 70	55	851 80
20	70	1,775 00	3,250 00	88 75	46 43	5,025 00	6,797 42	33	292 05
9	9	525 00	405 00	58 33	45 00	930 00	1,932 55	2	.....
10	20	700 00	700 00	70 00	35 00	1,400 00	2,079 03	12	163 00
9	18	450 00	815 26	50 00	45 29	1,265 26	2,490 91	3	21 75
10	50	1,000 00	1,975 00	100 00	39 50	2,975 00	4,083 87	19	175 74
19	86	2,000 00	4,385 00	105 26	50 98	6,385 00	8,929 23	80	1,128 04
9	79	900 00	3,849 54	100 00	48 72	4,749 54	8,016 17	12	139 50
9	81	1,000 00	4,050 00	111 11	50 00	5,050 00	6,668 72	13	82 00
20	40	1,200 00	1,700 00	60 00	42 50	2,900 00	4,525 20	18	158 35
9	45	720 00	1,827 00	80 00	40 60	2,547 00	4,660 72	27	364 15
45	243	5,150 00	13,924 66	114 44	57 30	19,074 66	27,869 74	22	173 40
9	18	804 50	783 50	89 39	43 52	1,588 00	2,151 77	15	33 15
10	20	632 12	885 63	63 21	44 28	1,517 75	2,102 83	.....	.....
9	9	495 00	315 00	55 00	35 00	810 00	1,216 10	3	13 00
10	50	800 00	2,005 00	80 00	40 10	2,805 00	3,931 96	10	111 37
20	30	1,150 00	1,436 00	57 50	47 86	2,586 00	3,699 17	25	277 75
11	49	963 75	2,560 50	87 61	52 25	3,524 25	5,465 99	5	8 57
.....	9	.....	360 00	.....	40 00	360 00	476 08	1	.....
10	10	710 00	480 00	71 00	48 00	1,190 00	1,563 69	19	131 50
10	28	1,050 00	1,235 00	105 00	44 03	2,285 00	2,822 20	34	374 18
10	30	550 00	1,209 50	55 00	40 30	1,759 50	3,387 82	.....	.....
10	104	1,200 00	4,429 32	120 00	42 59	5,629 32	21,213 05	32	565 64
15	134	1,502 50	6,077 00	100 16	45 35	7,579 50	10,841 25	48	558 70
40	560	5,250 00	32,005 78	131 25	57 15	37,255 78	59,230 42	75	1,427 01
20	40	1,300 00	1,750 00	65 00	43 75	3,050 00	4,857 98	.....	.....
10	20	700 00	800 00	70 00	40 00	1,500 00	1,795 55	7	14 50
47	836	5,950 00	44,605 59	126 59	53 35	50,555 59	80,956 63	34	377 00
19	105	1,300 00	5,883 75	68 42	56 03	7,183 75	9,912 25	57	725 35
9	18	540 00	630 00	60 00	35 00	1,170 00	1,471 16	7	36 20
9	27	630 00	1,215 00	70 00	45 00	1,845 00	10,555 10	10	76 00
.....	18	.....	675 00	.....	37 50	675 00	1,013 90	.....	.....
19	57	1,675 00	2,687 50	88 15	47 15	4,362 50	6,135 97	43	449 10
9	27	540 00	990 00	60 00	36 67	1,530 00	2,262 98	8	125 32
9	27	625 00	1,211 50	68 33	44 87	1,836 50	2,308 55	24	126 75
19	57	1,850 00	2,615 00	97 37	45 88	4,465 00	7,411 70	53	577 36
19	118	1,950 00	5,615 00	102 63	47 58	7,565 00	9,844 96	29	304 30
10	30	700 00	1,220 00	70 00	40 66	1,920 00	2,725 18	6	59 25
9	18	630 00	810 00	70 00	45 00	1,440 00	2,995 91	11	77 45
10	180	1,500 00	9,050 00	150 00	50 28	10,550 00	17,710 21	.....	.....
9	27	720 00	1,116 00	80 00	41 33	1,836 00	2,693 04	5	92 85
10	83	1,050 00	4,070 50	105 00	49 04	5,120 50	7,795 96	15	222 00
9	18	585 00	810 00	65 00	45 00	1,395 00	2,137 20	3	5 50
30	310	3,050 00	16,661 76	101 66	53 74	19,711 76	38,425 94	2	32 00
10	70	1,000 00	3,100 00	100 00	44 28	4,100 00	5,454 40	30	424 69

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Rockford	Kent	226	194	200	52	$22,000		1	7
Rockland Tp	Ontonagon	594	553	200	87	28,000	$8,000 00	4	16
Rockwood	Wayne	96	85	200	70	3,000		1	1
Rogers	Presque Isle	318	252	180	81	7,800	2,495 35	1	4
Romeo	Macomb	400	313	200	96	35,000		1	10
Romulus	Wayne	101	56	180	71	2,000		1	1
Roscommon	Roscommon	117	104	180	86	3,000	3,000 00	1	3
Rose City	Ogemaw	296	295	200	80	5,000	2,500 00	1	4
Royal Oak	Oakland	459	304	200	86	20,000	1,250 00	1	8
Saganing	Arenac	135	120	165	56	200		1	1
Saginaw	Saginaw	8,056	4,635	190	94	756,996	36,000 00	19	139
Saginaw, W. S	Saginaw	5,961	3,161	200	80	350,000	40,000 00	7	78
St. Charles	Saginaw	548	467	200	76	30,000	4,000 00	1	11
St. Clair	St. Clair	726	428	196	93	35,000		1	14
St. Ignace	Mackinac	625	433	193	91	20,000	12,000 00	4	9
St. Johns	Clinton	778	820	195	96	60,000		3	25
St. Joseph	Berrien	1,556	1,046	177	94	100,000		4	32
St. Louis	Gratiot	533	506	187	93	30,000	8,000 00	2	16
Salem	Washtenaw	54	53	180	82	2,000			2
Saline	Washtenaw	200	191	200	82	20,000		1	8
Sand Lake	Kent	137	128	180	89	3,000		2	2
Sandusky	Sanilac	318	286	190	69	12,000	3,500 00	1	6
Sanilac Tp. 3	Sanilac	63	38	180	67	1,200		1	
Sanilac Tp. 8 fr	Sanilac	56	46	180	71	700			1
Saranac	Ionia	242	199	200	95	15,000		1	6
Saugatuck	Allegan	201	162	175	79	12,500		1	5
Sault Ste. Marie	Chippewa	3,512	2,525	200	96	250,000	75,000 00	10	51
Schoolcraft	Kalamazoo	180	156	180	94	24,000		1	7
Scottville	Mason	270	240	190	97	15,000	2,400 00	1	9
Sebewaing	Huron	538	354	200	72	27,000	12,544 30	1	7
Shelby	Oceana	362	335	190	93	15,000		1	11
Shepherd	Isabella	272	242	180	97	20,000	10,000 00	1	7
Sheridan	Montcalm	154	114	180	82	5,400		2	2
Sherman	Wexford	142	133	175	73	4,000		1	3
Sherman Tp. 2	Osceola	148	126	180	77	6,000		1	2
Sherwood	Branch	116	120	180	82	6,000		2	2
Soule	Huron	115	85	200	75	1,500		1	1
So. Frankfort	Benzie	216	150	200	90	8,600		1	4
So. Haven	Van Buren	924	797	190	96	75,000		4	25
So. Lyon	Oakland	168	148	190	92	3,500		1	4
Spalding Tp	Menominee	703	577	183	74	28,400	324 22	1	12
Sparta	Kent	344	328	200	86	10,000		1	9
Springfield Tp. 4	Oakland	58	39	200	97	1,500			2
Spring Lake	Ottawa	203	144	190	85	7,000		1	4
Springport	Jackson	143	122	200	95	4,000		1	5
Springwells Tp. 3	Wayne	380	218	200	96	18,000	16,000 00	1	4
Stambaugh Tp	Iron	951	745	200	87	65,000	53,000 00	8	17
Standish	Arenac	408	318	200	66	12,500	7,500 00	3	7
Standish Tp. 2	Arenac	134	108	180	56	1,500	27 36	1	1
Stanton	Montcalm	343	304	188	93	25,000	18,523 10	1	9
Stanwood	Mecosta	127	109	180	85	2,500		1	2
Stephenson Tp	Menominee	1,301	900	180	76			2	24
Sterling	Arenac	208	152	200	73	4,000		1	3
Stevensville	Berrien	230	121	176	82	5,500		1	4
Stockbridge	Ingham	173	147	200	95	7,500	1,000 00	3	3
Sturgis	St. Joseph	818	699	190	93	65,000		2	18
Sumner Tp. 4 fr	Gratiot	87	73	180	70	2,600		1	2
Sunfield	Eaton	126	86	190	92	3,000		1	3
Superior Tp	Chippewa	437	382	194	81	20,350	7,000 00	2	10
Sutton's Bay	Leelanau	205	103	180	75	8,000	314 70	1	3

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
10	50	$850 00	$2,116 50	$85 00	$42 33	$2,966 50	$4,249 62	28	$262 35
40	160	3,050 00	8,725 00	76 25	54 53	11,775 00	15,974 09	.....	.....
10	10	550 00	400 00	55 00	40 00	950 00	1,424 53	.....	.....
9	36	749 97	1,670 00	83 33	46 38	2,419 97	3,634 03	4	.....
10	99	1,500 00	5,612 50	150 00	56 69	7,112 50	9,292 55	53	740 80
9	9	585 00	315 00	65 00	35 00	900 00	1,155 95	.....	.....
9	27	675 00	1,350 00	75 00	50 00	2,025 00	2,797 53	8	.....
10	40	750 00	1,600 00	75 00	40 00	2,350 00	3,458 26	6	47 50
10	80	1,000 00	3,500 00	100 00	43 75	4,500 00	11,277 53	16	152 00
8	8	425 00	315 00	53 12	39 38	740 00	1,347 98	2	.....
190	1,390	24,750 00	90,380 25	130 36	65 02	115,130 25	170,406 96	115	3,386 52
70	780	9,300 00	43,965 76	132 85	56 36	53,265 76	93,570 94	20	277 43
10	108	1,000 00	4,845 00	100 00	44 86	5,845 00	8,218 79	13	92 00
10	140	1,350 00	7,210 00	135 00	51 50	8,560 00	11,947 50	15	108 00
40	90	3,283 30	5,150 00	82 08	57 22	8,433 30	13,088 49	11	134 67
30	250	3,200 00	12,710 26	106 66	50 84	15,910 26	23,121 17	67	1,350 96
36	288	4,675 00	17,578 84	129 86	61 04	22,253 84	31,214 00	28	610 25
20	160	2,200 00	7,550 00	110 00	47 19	9,750 00	14,844 66	45	456 00
.....	18	.....	675 00	.....	37 50	675 00	917 02	3	18 00
10	68	1,050 00	2,960 00	105 00	43 52	4,010 00	5,671 98	36	452 08
18	18	1,035 00	700 00	57 50	38 89	1,735 00	2,249 67	19	166 25
9	56	900 00	2,753 50	100 00	49 17	3,653 50	5,455 45	15	191 97
9	.....	495 00	.....	55 00	.....	495 00	604 98	6	.....
.....	9	.....	450 00	.....	50 00	450 00	577 24	.....	.....
10	60	900 00	2,725 00	90 00	45 41	3,625 00	5,048 20	60	699 88
9	45	900 00	2,070 00	100 00	46 00	2,970 00	3,850 70	3	.....
100	510	11,400 00	32,452 33	114 00	63 65	43,852 33	64,742 95	61	.....
9	63	1,000 00	3,015 00	111 11	47 85	4,015 00	5,175 39	26	329 06
9	67	950 00	3,135 75	105 56	46 80	4,085 75	5,412 48	41	560 32
10	70	1,000 00	3,236 25	100 00	46 23	4,236 25	6,250 01	8	35 37
10	103	1,100 00	5,260 00	110 00	51 06	6,360 00	8,026 29	48	492 00
9	63	850 00	2,857 50	94 44	45 35	3,707 50	5,827 68	27	336 50
18	18	1,012 50	720 00	56 25	40 00	1,732 50	2,235 74	10	69 00
9	27	600 00	1,215 00	66 67	45 00	1,815 00	2,495 82	6	47 60
9	18	630 00	882 00	70 00	49 00	1,512 00	2,474 47	6	40 25
18	18	990 00	810 00	55 00	45 00	1,800 00	2,880 19	23	48 99
10	10	610 00	350 00	61 00	35 00	960 00	1,212 01	2	13 00
10	40	800 00	1,700 00	80 00	42 50	2,500 00	3,276 35	.....	.....
38	228	4,175 00	11,450 00	109 86	50 21	15,625 00	24,774 07	138	1,602 27
9	38	900 00	1,710 00	100 00	45 00	2,610 00	3,377 84	14	158 50
10	114	900 00	5,156 75	90 00	38 08	6,056 75	8,464 21	13	.....
10	90	900 00	4,325 00	90 00	48 05	5,225 00	6,989 24	33	523 00
.....	20	.....	900 00	.....	45 00	900 00	996 16	7	41 60
9	38	900 00	1,710 00	100 00	45 00	2,610 00	3,340 30	3	18 35
10	47	900 00	1,790 00	90 00	38 08	2,690 00	3,533 90	29	217 12
10	40	800 00	2,030 00	80 00	50 75	2,830 00	4,756 82	3	16 00
73	152	5,685 00	7,545 25	77 87	49 64	13,230 25	36,499 56	1	.....
23	66	1,230 00	2,820 00	53 47	45 00	4,050 00	7,941 81	14	112 01
9	9	450 00	315 00	50 00	35 00	765 00	1,072 20	.....	.....
10	85	1,000 00	4,548 33	100 00	53 50	5,548 33	8,418 05	17	215 00
9	18	540 00	625 50	60 00	34 75	1,165 50	1,863 23	4	.....
18	216	1,485 00	8,730 00	82 50	40 41	10,215 00	16,642 03	.....	.....
10	30	700 00	1,250 00	70 00	41 66	1,950 00	2,512 07	1	.....
8	34	640 00	1,570 00	80 00	46 18	2,210 00	3,418 37	15	94 90
30	30	1,800 00	1,350 00	60 00	45 00	3,150 00	4,213 10	59	583 80
19	171	1,865 00	8,175 00	98 16	47 80	10,040 00	14,446 19	32	347 95
9	15	495 00	610 00	55 00	40 66	1,105 00	1,623 66	7	77 31
10	28	800 00	1,282 50	80 00	45 77	2,082 50	2,762 56	13	114 00
27	89	1,715 00	3,725 50	63 51	41 86	5,440 50	17,704 35	2	.....
9	27	680 56	1,080 00	75 62	40 00	1,760 56	2,815 55	1	8 00

TABLE XVI.—*Continued.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Tawas City	Iosco	425	265	197	91	$8,000	$1,000 00	1	8
Tecumseh	Lenawee	473	450	177	97	50,000		2	14
Tekonsha	Calhoun	166	162	190	94	15,000		1	5
Thompsonville	Benzie	307	292	180	75	4,200		1	8
Thornville	Lapeer	62	47	180	63	2,000		1	1
Three Oaks	Berrien	355	302	180	81	20,000	1,500 00	1	10
Three Rivers	St. Joseph	1,108	962	182	96	80,000	15,000 00	4	34
Tittabawassee Tp. 3 fr	Saginaw	132	112	200	70	2,300	175 00	1	2
Tilden Tp	Marquette	521	397	139	75	30,000	11,500 00	2	9
Traverse City	Grand Traverse	2,765	2,334	187	93	175,000	20,000 00	7	58
Trenton	Wayne	419	311	200	83	20,000	17,000 00	1	9
Trufant	Montcalm	154	124	180	79	4,000	205 18	1	3
Turner	Arenac	177	190	200	60	3,000		1	2
Tuscola	Tuscola	84	57	180	90	1,500		1	1
Tustin	Osceola	152	143	176	90	5,000		1	3
Twining	Arenac	178	166	180	55	6,000		1	3
Tyre	Sanilac	147	126	178	62	3,000	1,000 00		2
Ubly	Huron	161	135	200	80	4,500		1	2
Union City	Branch	330	305	200	91	25,000		2	11
Unionville	Tuscola	199	169	200	80	11,000	1,600 00	1	3
Utica	Macomb	214	145	197	81	20,000	12,735 00	1	4
Vandalia	Cass	126	112	180	83	6,550		1	3
Vanderbilt	Otsego	170	162	197	91	4,500		1	3
Vassar	Tuscola	463	387	200	87	2,500	300 00	2	12
Vermontville	Eaton	165	167	190	86	10,000		1	6
Vernon	Shiawassee	110	82	198	94	8,000		1	5
Vestaburg	Montcalm	111	92	180	67	2,000		2	
Vicksburg	Kalamazoo	329	252	180	99	50,000	32,000 00	2	10
Vriesland	Ottawa	130	87	190	84	3,500		1	1
Wacousta	Clinton	83	62	179	95	1,000		1	2
Wakefield	Gogebic	845	682	200	90	140,000	46,000 00	2	18
Waldron	Hillsdale	116	107	175	88	8,300	1,400 00	1	3
Walker Tp. 11	Kent	261	153	180	75	5,000	2,400 00	1	5
Warren	Macomb	94	71	180	66	2,500		1	1
Warren Tp. 1 fr	Macomb	87	62	180	72	1,500		1	1
Washington Tp. 4 fr	Sanilac	83	76	179	65	1,000		1	
Washington Tp. 12 fr	Macomb	70	59	200	71	1,500		1	1
Watervliet	Berrien	274	249	173	88	10,000		1	7
Wayland	Allegan	186	161	178	83	7,500		1	5
Wayne	Wayne	401	347	200	92	35,000	25,000 00	1	9
Webberville	Ingham	117	112	180	86	4,000		1	2
Weidman	Isabella	152	110	175	84	6,000		1	2
West Branch	Ogemaw	601	581	190	89	18,000		1	11
Wheeler	Gratiot	111	87	180	89	500	3,000 00	1	1
White Cloud	Newaygo	239	203	180	90	7,000		1	5
Whitehall	Muskegon	440	359	190	78	30,000		1	9
White Pigeon	St. Joseph	182	195	180	84	18,000		1	6
White Rock	Huron	44	32	180	78	1,200	100 00		1
Whittemore	Iosco	127	123	193	58	5,000	2,080 00	1	1
Williamston	Ingham	332	303	200	89	30,000		1	10
Winsor Tp. 1	Huron	197	122	200	83	3,000	100 00	1	1
Winsor Tp. 2	Huron	139	97	200	53	2,000	700 00		2
Wolverine	Cheboygan	270	217	190	75	8,000		1	6
Woodland	Barry	65	49	180	89	3,000		1	2
Wyandotte	Wayne	2,254	1,004	187	95	121,000	839 60	2	33
Wyoming Tp. 7	Kent	449	252	195	61	21,000	9,000 00	1	4
Wyoming Tp. 9 fr	Kent	518	363	200	82	15,500	12,100 00	2	10
Yale	St. Clair	352	332	185	96	40,000	16,500 00	1	10
Ypsilanti	Washtenaw	1,555	952	195	95	75,000		4	28

TABLE XVI.—*Continued.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
10	79	$1,000 00	$3,976 75	$100 00	$50 34	$4,976 75	$7,771 10	10	$73 00
19	133	2,100 00	6,700 00	110 53	50 37	8,800 00	12,494 94	98	1,465 96
9	48	900 00	2,003 63	100 00	41 74	2,903 63	3,622 76	37	321 28
9	54	800 00	2,555 00	88 89	47 31	3,355 00	5,197 82	4	.....
9	9	540 00	270 00	60 00	30 00	810 00	952 65	.....	.....
9	90	1,100 00	3,879 00	122 23	43 00	4,979 00	7,113 46	19	225 75
39	274	4,300 00	14,235 72	110 26	51 95	18,535 72	25,077 45	27	287 18
10	20	475 20	720 00	47 52	36 00	1,195 20	1,497 62	11	34 05
20	82	1,500 00	4,130 00	75 00	50 36	5,630 00	17,033 74	.....	.....
67	551	7,532 50	29,814 83	112 42	54 11	37,347 33	59,375 09	76	2,127 00
10	90	950 00	4,293 30	95 00	47 70	5,243 30	7,958 16	14	84 50
9	18	540 00	696 25	60 00	38 68	1,236 25	1,867 51	2	20 75
10	20	750 00	950 00	75 00	47 50	1,700 00	2,317 97	2	7 00
9	9	540 00	315 00	60 00	35 00	855 00	1,319 52	20	96 50
9	27	675 00	1,215 00	75 00	45 00	1,890 00	2,726 08	24	143 85
9	27	630 00	1,125 00	70 00	41 66	1,755 00	2,537 55	8	19 00
.....	18	.....	855 00	.....	47 50	855 00	1,005 44	2	.....
10	20	700 00	800 00	70 00	40 00	1,500 00	2,063 72	14	65 00
20	110	1,885 00	5,375 00	94 25	48 95	7,260 00	9,445 19	61	726 11
10	30	750 00	1,210 00	75 00	40 33	1,960 00	3,125 97	23	140 00
10	42	850 00	1,940 00	85 00	46 19	2,790 00	4,439 82	17	174 00
9	27	765 00	1,260 00	85 00	46 67	2,025 00	2,613 18	21	113 30
10	30	700 00	1,350 00	70 00	45 00	2,050 00	3,035 03	.....	.....
10	120	1,850 00	5,200 00	185 00	43 33	7,050 00	8,997 54	20	253 40
9	57	1,000 00	2,493 75	111 11	43 73	3,493 75	4,478 98	39	436 34
10	40	775 00	1,282 50	77 50	32 06	2,057 50	2,571 44	17	146 00
18	.....	1,008 00	.....	56 00	.....	1,008 00	1,593 26	11	83 75
18	90	1,830 00	4,305 00	101 67	47 83	6,135 00	25,647 97	40	551 00
10	9	650 00	427 50	65 00	47 50	1,077 50	1,492 13	.....	.....
9	18	585 00	720 00	65 00	40 00	1,305 00	2,196 34	11	86 00
20	180	2,150 00	9,525 00	107 50	52 89	11,675 00	53,581 69	.....	.....
9	27	700 00	1,192 50	77 78	44 10	1,892 50	2,807 46	27	243 80
9	27	675 00	1,125 00	75 00	41 67	1,800 00	3,190 11	.....	.....
9	9	585 00	337 50	65 00	37 50	922 50	1,192 00	.....	.....
9	9	440 00	360 00	48 89	40 00	800 00	933 66	2	27 55
8	.....	560 00	.....	70 00	.....	560 00	801 36	2	.....
10	10	600 00	400 00	60 00	40 00	1,000 00	1,455 83	4	32 00
9	65	1,000 00	3,080 25	111 11	47 39	4,080 25	5,345 82	35	416 41
9	36	720 00	1,620 00	80 00	45 00	2,340 00	3,290 66	51	458 21
10	90	1,100 00	4,002 50	110 00	44 47	5,102 50	35,165 16	67	771 09
9	18	675 00	706 00	75 00	39 22	1,381 00	1,705 50	9	70 25
9	18	630 00	810 00	70 00	45 00	1,440 00	1,748 62	3	29 00
9	95	1,100 00	5,201 25	122 22	54 75	6,301 25	9,951 85	22	142 50
9	9	540 00	328 50	60 00	36 50	868 50	1,020 84	2	.....
9	45	675 00	1,935 00	75 00	43 00	2,610 00	3,388 89	7	4 00
9	86	1,000 00	4,157 95	111 11	48 34	5,157 95	6,611 10	13	122 25
9	54	1,050 03	2,407 50	116 67	44 58	3,457 53	4,591 50	35	342 83
.....	9	.....	360 00	.....	40 00	360 00	432 70	.....	.....
10	10	700 00	400 00	70 00	40 00	1,100 00	1,424 69	8	25 00
10	98	1,100 00	4,520 00	110 00	46 12	5,620 00	7,420 95	42	458 30
10	10	650 00	550 00	65 00	55 00	1,200 00	1,673 84	8	9 50
.....	18	.....	824 00	.....	45 55	824 00	1,022 06	.....	.....
9	58	760 00	2,845 00	84 45	49 05	3,605 00	4,418 58	14	137 75
9	18	585 00	810 00	65 00	45 00	1,395 00	1,760 45	25	350 85
20	325	2,250 00	17,550 63	112 50	54 00	19,800 63	42,113 38	35	530 18
10	40	825 00	1,750 00	82 50	43 75	2,575 00	4,160 24	.....	.....
20	100	1,800 00	4,171 00	90 00	41 71	5,971 00	8,915 65	50	618 50
10	95	1,100 00	4,305 00	110 00	45 31	5,405 00	8,539 80	48	620 50
40	280	5,249 92	15,731 25	131 24	56 18	20,981 17	30,576 34	44	624 40

TABLE XVI.—*Concluded.*

Districts.	Counties.	Number of children between 5 and 20 years.	Number of children that attended school during the year.	Number of days school.	Percentage of attendance.	Estimated value of school property.	Total indebtedness.	Number of teachers employed.	
								Men.	Women.
Yuma	Wexford	81	70	180	67	$4,000	$985 00	1	1
Zeeland	Ottawa	687	599	200	82	25,000	10,000 00	1	17
Zeeland Tp. 4 fr.	Ottawa	105	71	200	87	2,000	.....	1	1
Zutphen	Ottawa	135	101	200	68	2,000	.....	1	2

TABLE XVI.—*Concluded.*

Aggregate number of months taught by all teachers.		Total wages of teachers for the year.		Average monthly wages of teachers.		Amount paid for superintendence and instruction.	Total cost of schools.	Number of non-resident pupils.	Tuition of non-resident pupils.
Men.	Women.	Men.	Women.	Men.	Women.				
9	9	$450 00	$360 00	$50 00	$40 00	$810 00	$1,397 67	3	$10 00
10	159	1,000 00	7,056 00	100 00	44 36	8,056 00	10,737 20	18	268 65
10	10	520 00	320 00	52 00	32 00	840 00	1,151 66	6	....
9	10	522 00	360 00	57 78	36 00	882 00	1,068 79	.....	.....

TABLE XVII.

Census, enrollment, attendance, etc., of city and graded village schools

Incorporated cities.	School population from inspectors' reports.	Enrollment.				Average number belonging.				
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.
Totals for cities	336,848	28,592	82,752	150,408	261,752	23,160	57,475	93,265	173,900	27,102
Adrian	2,527	— 438	604	975	2,017	399	489	691	1,579	429
Albion	1,279	240	634	331	1,205	208	511	286	1,005	225
Allegan	881	227	224	298	749	188	201	236	625	206
Alma	767	146	272	748	1,166	123	161	337	621	141
Alpena	3,919	196	641	1,275	2,112	183	553	1,036	1,772	172
Ann Arbor	3,508	— 743	*1,888	.....	2,631	616	*1,686	.....	2,302	705
†An Gres	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Au Sable	432	51	139	177	367	46	125	146	317	44
Bad Axe	492	.....	37	45	82	.....	37	45	82	.....
Battle Creek	5,755	— 605	1,310	2,606	4,521	547	1,090	2,086	3,723	574
Bay City	13,342	— 1,061	3,085	5,208	9,354	662	1,766	3,023	5,451	1,018
Beaverton	205	62	40	128	230	31	35	90	156	28
Belding	882	115	231	406	752	112	215	365	692	111
Benton Harbor	2,254	258	606	982	1,846	228	470	665	1,363	247
Bessemer	1,332	136	421	721	1,278	121	316	594	1,031	131
Big Rapids	1,162	147	296	479	922	140	237	386	763	144
Boyne City	1,541	115	395	891	1,401	95	302	684	1,081	108
Brown City	211	72	44	132	248	72	44	132	248	62
Cadillac	2,308	214	629	1,250	2,093	200	540	1,253	1,993	205
Charlevoix	747	125	180	182	487	110	178	170	458	97
Charlotte	1,038	249	318	484	1,051	210	269	359	838	241
Cheboygan	2,364	167	442	937	1,546	140	351	646	1,137	150
Clare	420	91	151	211	453	72	126	158	356	88
Coldwater	1,289	228	408	485	1,121	209	358	405	972	218
Coleman	382	63	114	197	374	54	95	152	301	56
Corunna	371	64	123	195	382	58	107	153	318	62
Croswell	414	88	117	252	457	73	96	164	333	82
Crystal Falls	1,584	121	603	1,229	1,953	100	307	671	1,078	118
Detroit	109,231	6,093	26,895	58,182	91,170	4,282	14,254	26,928	45,464	5,788
Dowagiac	1,214	155	345	847	1,347	137	299	522	958	150
East Lansing	168	42	35	67	144	40	35	50	125	40
East Tawas	503	61	140	212	413	54	124	178	356	53
Eaton Rapids	419	117	142	134	393	112	133	125	370	114
Escanaba	4,198	412	738	1,730	2,880	375	697	1,052	2,124	391
Flint	6,637	— 566	1,876	3,337	5,779	437	1,980	1,855	4,272	537
Gladstone	1,297	134	356	622	1,112	116	314	510	940	128
‡Gladwin	285	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Haven	1,639	180	394	649	1,223	166	358	534	1,058	176
Grand Ledge	674	136	150	328	614	120	122	268	510	133
Grand Rapids	29,626	2,167	7,152	12,935	22,254	1,451	4,224	7,905	13,580	2,101
Greenville	929	184	243	477	904	151	184	319	654	176
Hancock	2,637	210	771	1,504	2,485	175	322	808	1,305	201
Harbor Beach	495	81	94	185	360	74	88	175	337	76
‡Harrison	272	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrisville	178	35	45	74	154	33	44	70	147	30
Hastings	903	215	353	375	943	190	304	320	814	204
Hillsdale	1,372	280	343	622	1,245	261	286	498	1,045	271
Holland	3,004	— 192	1,175	1,854	3,221	151	706	1,043	1,900	190
‡Hudson	562	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ionia	1,264	122	311	436	869	111	257	369	737	117

*Includes grammar and primary departments.
†Not legally graded.
‡No report received.

TABLE XVII.

as reported by superintendents for the school year 1909-1910.

Average daily attendance.			Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. special teachers.
							High school department.		Grammar department.		Primary department.		Whole school.			
Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
78,457	139,003	244,562	93	92	89	91	358.8	705.2	85.4	1,774.7	28.1	2,622	505	5,097.1	.....	304
573	916	1,918	98	95	94	96	5	10	.....	13	.....	21	5	44	All	6
589	304	1,118	94	93	92	93	2.2	6	1	6	.....	13	4	25	5-6	5
168	223	597	91	75	75	80	1.5	6	.....	6.5	.....	7.5	2	20	1 2	2
263	336	740	97	97	94	95	2.3	3	.....	5	.....	8	3	16	3-4	3
528	967	1,667	88	82	75	78	3.1	5	1.3	16	.....	28	5	49	All	3
*1,793	.....	2,498	95	95	95	95	9.7	13	.....	50	.....	.....	10	63	All	10
117	130	291	86	84	77	80	.7	1.4	1	2.6	.....	4	2	8	3-8	.....
						77				1	.....	1		2	All	.....
1,257	2,475	4,306	97	96	95	96	8	13	4	32	.....	55	12	100	All	8
3,723	5,051	9,792	96	98	97	98	13.1	21	2.3	69	2.6	108	18	198	All	6
31	75	134	45	77	58	58	1	1	.....	1	.....	3	1	5	.....	.....
221	385	717	97	96	95	96	1	5	.....	6	.....	9	1	20	4-7	2
575	932	1,754	96	95	95	95	2.3	8	.....	15	.....	19	3	42	All	4
383	677	1,191	97	91	94	94	1.7	4.5	.....	13.5	.....	17	2	35	1-3	3
284	455	883	98	96	95	96	1	7	.....	6	.....	14	1	27	All	3
359	819	1,286	94	91	92	92	2	2	.....	8	.....	19	3	29	All	2
30	101	193	87	77	75	79	1	2	.....	1	.....	3	1	6	.....	.....
540	1,225	1,970	96	86	98	94	3	5	1	17	.....	23	4	45	All	.....
176	160	433	77	97	87	88	3	3	1	4	.....	7	4	14	All	2
302	454	997	97	95	94	95	2	7	.....	8	.....	10	2	25	3-7	2
419	852	1,421	96	95	91	94	4	5	2	9	.....	19	6	33	All	3
131	179	398	97	87	85	87	.5	2.5	.....	3.5	.....	4	1	10	2 7	1
391	465	1,074	96	96	96	96	4	5	1	10	.....	13	5	28	7-8	3
100	167	323	89	88	85	87	1	1.5	.....	3.5	.....	3	1	8	.....	.....
116	183	361	97	95	94	95	.4	3	.....	3	.....	5	1	11	3-7	2
111	241	434	94	95	96	95	1.6	1	.....	2	.....	4	2	7	1-4	.....
566	1,155	1,839	98	94	94	95	1.4	4	.....	10	.....	18	2	32	All	8
25,550	53,527	84,865	95	95	92	94	70	137	27	526	19	711	116	1,374	All	10
241	796	1,187	97	96	94	95	3	3	1	8	.....	14	5	25	6-7	1
33	30	103	95	94	44	71	1	1	.....	1	.....	1	1	3	.....	.....
122	172	347	99	94	96	95	1	2	1	2	.....	5	2	9	1-3	.....
139	129	382	98	98	97	97	2	4	.....	4	.....	4	2	12	1 4	3
693	1,591	2,675	95	94	92	94	6.3	12	.3	18	.4	30	7	60	All	2
1,763	3,103	5,403	95	94	93	93	3	15	.....	28	.....	54	4	97	All	5
345	584	1,057	96	97	94	95	1.5	4	.....	7.5	.....	11.5	2	23	1-2	.....
386	636	1,198	98	98	98	98	2.6	5	.....	10	.....	15	3	30	6-7	2
136	288	557	98	91	88	93	1.5	4	.....	3.5	.....	5.5	2	13	1-2	1
6,865	12,417	21,383	97	96	96	96	20	47	2	138	1	248	23	433	All	33
223	434	833	96	92	91	93	.5	6	.....	7	.....	8	1	21	1-2	2
740	1,458	2,399	96	96	97	97	3.6	6	1.4	8	.....	20	5	34	All	1
77	163	316	95	82	88	87	.7	2	.....	3	.....	4	1	9	1-3	1
42	62	134	90	95	88	90	1	.....	.....	1	.....	2	1	3	.....	.....
335	356	895	95	95	95	95	4	4	.....	7	.....	14	4	25	All	3
332	597	1,200	97	97	96	96	3.7	6	.....	8	.....	13	4	27	3-4	4
1,104	1,761	3,055	93	94	95	94	2	5	1	17	.....	25	4	47	All	3
301	422	840	96	97	97	97	3.4	4	.....	10	.....	14	4	28	7-8	1

*Includes grammar and primary departments.

TABLE XVII.—*Continued.*

Incorporated villages.	School population from inspectors' reports.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Addison	151	19	35	85	139	46	35	55	136	18	33	79	130
Akron	183				190							131	131
Alanson	216	12	91	89	192	10	79	78	167	10	77	75	162
Algonac	457	32	94	212	338	32	82	188	302	29	76	170	275
Almont	227	50	85	95	230	45	81	85	211	42	74	77	193
Applegate	83		31	26	57								
Armada	213	59	73	85	217	52	61	60	173	44	49	53	146
Ashley	175	26	54	71	151	24	46	72	142	23	44	65	132
Athens	196	81	72	72	225	76	68	68	212				
*Atlanta													
Attica	106		36	47	83		40	45	85		31	38	69
Augusta	141	39	50	58	147	36	50	58	144	34	43	41	118
Baldwin	163	15	46	55	116	13	42	60	115				
Bancroft	117	30	42	62	134	25	48	55	128	24	38	58	120
Bangor	372	98	152	143	393	90	132	128	350	95	151	130	376
Baraga	1,035	30	150	170	350	26	135	150	311	23	133	158	314
Baroda	204												
Barryton	154	46	44	80	170	42	37	55	134	44	35	60	139
Bear Lake	177	50	59	68	177	50	59	68	177	45	55	61	161
Bellaire	339	56	85	187	328	51	79	176	306	46	73	169	288
Belleville	150	36	64	70	170	30	50	60	140	33	54	60	147
Bellevue	266	59	71	102	232	55	69	97	221	57	66	93	216
Benzonia	271	39	82	126	247	34	69	102	205	35	74	113	222
Berrien Springs	204	54	73	102	229	43	58	76	177	51	69	96	216
†Birmingham	435												
Blissfield No. 1 fr	143		33	81	114		25	69	94		30	75	105
Blissfield No. 2 fr	265	91	95	140	326	82	75	99	256	86	88	133	307
Bloomingdale	166	81	37	54	172	70	30	43	143	78	34	48	160
Boardman	222	40	65	117	222	36	57	89	182	31	50	71	152
Boyne Falls	150	29	39	45	113	25	38	34	97	27	35	41	103
Breckenridge	183	52	41	111	204	46	33	74	153	41	30	61	132
†Breedsville	110												
Brighton	183	50	67	73	190	44	57	54	155	48	65	69	182
Britton	129	35	29	42	106	34	24	39	97	33	27	33	93
Bronson	268	92	86	51	229	86	82	48	216	85	80	46	211
Brooklyn	143	52	40	63	155	45	38	56	139	40	35	48	123
Buchanan	379	75	124	183	382	64	92	137	293	72	117	170	359
Buckley	195				22				178				114
Burlington	87	33	18	27	78	29	17	24	70	29	16	24	69
Burr Oak	182	72	43	79	194	76	46	84	206	64	36	74	174
Byron	126	44	28	62	134	41	26	53	120	41	26	57	124
Caledonia	135	48	66	23	137	39	53	21	113	46	62	21	129
Calumet	8,054	705	2,261	3,599	6,565	656	2,910	2,756	6,322	683	2,135	3,347	6,165
Camden	109	56	30	47	133	55	28	45	128	54	27	19	100
Capac	195	51	34	108	193	43	30	89	162	43	31	95	169
Caro	607	153	162	319	634	136	145	239	520	149	158	296	603
†Carson City	252												
Carsonville	147		44		44		38		38		25		25
Caseville	152	9	82	46	137	4	72	36	112	7	68	43	118
Casnovia	107	42	28	56	126	37	25	45	107	34	26	49	109
Cass City	375	123	133	125	381	111	106	91	310	116	119	118	353
Cassopolis	268	72	88	106	266	62	80	100	242	69	66	79	214
Cedar Springs	261	68	74	129	271	64	68	103	235	67	68	119	254
Central Lake	254	52	100	115	267	48	97	108	253	50	97	110	257
Centreville	161	44	58	68	170	37	52	55	144	37	54	59	150

*Not legally graded.
†No report received.

TABLE XVII.—*Continued.*

Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. special teachers.
				High school department.		Grammar department.		Primary department.		Whole school.			
High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
96	95	94	95	1	2				2	1	4		1
89	85	85	86	1.8			1		2	2	3	1-5	
92	93	90	91	.7	1		4		5	1	10	1-3	
93	91	90	91	.7	1		2		2	1	5	1-8	1
88	76	79	81	1	1	1	1		2	2	4		
84	81	91	85	.8	1		1.3		1.7	1	4	1-7	
				1.7	1		2		2	2	5	3-8	
	86	90	83	1					1	1	1		
87	85	70	80	.8	2		2		1	1	5	1-6	
81	92	85	86	.8			2		1	1	3	1-6	
82	91	94	89	.8	1		1		2	1	4	1-6	1
97	94	91	94	2.7	1.1	1	2.2		3.2	4	6.5	1-3	
77	89	93	86	1.7			2		3	2	5	1-3	
96	81	76	85	1			1		1	1	2		
90	93	89	90	1			1		2	1	3		
82	86	90	86	.7	2		2		4	1	8	1 3	1
93	85	86	88	1			1.5		1.5	1	3		
98	94	92	94	1.6	2		2		2	2	6	4-7	1
90	91	90	90	1	1		1.5		1.5	1	5		
96	95	95	95	.1	1.5		2		3	1	6.5	1 8	
	91	93	92				1		2		3		
95	93	95	94	.7	3		2		3	1	8	2 7	1
97	93	90	93	1	2		1		1	1	4		
87	89	82	86	1			2		2	1	4	1 6	
94	90	93	92		2		1		1		4		
89	90	84	87	1	1		1		2	1	4		
97	98	95	96	.8	1		2		2	1	5	1 9	
96	96	76	89	1			1		1	1	2		
92	93	90	91	.7	3		3		2	1	8	1 3	
76	87	76	79	1	1		1		2	1	4		
96	95	93	95	1.5	2		4		4	2	10	1-2	1
			70							1	4		
90	94	90	92	1			1		1	1	2		
90	83	94	89	1	2	1			3	2	5	1-6	1
94	94	93	93	.8			1		2	1	3	1 6	
97	95	94	95	1			2		1	1	3		
97	94	93	94	14	18	2	57	1	113	17	188	All	4
96	96	95	96	1	1		1		2	1	4		
86	93	88	89	.9	1		1		2	1	4	1 8	
98	98	93	96	1.5	4		4		7	2	15	1 2	1
	58		58				1				1		
81	84	94	86	1			2		1	1	3		
82	96	89	89	1	1		1		1	1	3		
95	90	95	93	1.7	2		4		4	2	10	1 3	2
96	76	75	82	.8	3		2.5		2.5	1	8	1-4	1
99	93	93	95	.8	2		2.5		2.5	1	7	1-6	1
97	97	96	96	.7	2		3		3	1	8	1-3	1
84	95	88	89	.8	2		2		2	1	6	1 4	

TABLE XVII.—*Continued.*

Incorporated villages.	School population from inspectors' reports.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Chelsea	484	133	130	118	381	122	110	109	341	129	126	112	367
Chesaning	371	73	94	135	302	65	82	111	258	70	89	129	288
Clarkston	131	47	38	38	123	43	35	32	110	44	33	33	110
Clayton	92	35	26	26	87	35	26	25	86	31	18	21	70
*Clifford													
Climax	115	35	35	61	131	31	30	55	116	33	34	54	121
Clinton	157	86	45	59	190	75	44	58	177	79	42	53	174
Clio	217	39	85	101	225	34	64	66	164	36	79	93	208
Coloma	382	75	67	87	229	70	65	80	215	62	58	66	186
Colon	205	58	40	88	186	54	37	78	169	55	37	80	172
Columbiaville	96	34	33	55	122	30	32	41	103	32	31	51	114
Concord	137	40	53	60	153	35	50	53	138	35	47	47	129
Constantine	243	57	58	125	270	80	53	105	238	82	55	103	240
Coopersville	240	70	88	109	267	65	70	94	238	66	81	101	248
Copemish	143	37	45	61	143	37	45	61	143	35	38	53	126
*Croton													
Custer	108	33	31	26	90	28	30	22	80	29	24	24	77
†Daggett													
Dansville	91	31	28	29	98	26	32	24	82	29	37	28	94
Davison	190	65	65	62	193	58	56	48	162	62	60	67	189
Dearborn	358	40	83	179	302	37	71	140	248	33	58	117	208
Decatur	367	80	114	178	372	72	98	143	313	77	103	161	341
Deckerville	193	47	41	114	202	47	41	114	202	38	37	78	143
Deerfield	185	38	45	88	171	38	45	88	171	35	42	80	157
Dimondale	97				70								68
Detour	327	28	80	107	213	26	68	86	180	26	68	86	180
Dexter	221	92	72	68	232	88	68	65	221	90	70	65	225
Douglas	138	42	35	43	120	42	35	34	111	36	28	35	101
Dryden	129	38	40	55	123	41	41	41	123	20	30	36	86
Dundee	292	77	85	100	263	72	70	81	223	73	59	81	213
Durand	549	68	182	236	486	63	146	178	387	66	171	224	461
*Eagle													
East Grand Rapids	173		37	95	132		29	77	106		30	84	114
East Jordan	943	107	194	395	696	90	162	287	539	100	152	363	645
*East Clare	111												
*Ecorse	305												
Edmore	256	54	71	114	239	44	62	79	185	50	67	101	218
Elk Rapids	513	100	153	243	496	87	135	212	434	96	148	235	479
Elsie	222	44	92	122	258	38	80	104	222	37	73	114	226
Elsie	301	67	57	71	195	66	56	78	200	60	53	68	181
*Emmett													
Empire	214	30	90	82	192	18	83	60	161	16	73	54	145
Emerville	512		55	97	152		42	71	113		36	58	94
Evart	457	120	106	183	409	109	93	176	378	97	80	162	339
Fairgrove	134	33	31	76	130	30	28	53	101	21	25	63	109
Farmington	153	33	55	78	166	28	48	62	138	26	47	53	126
Farwell	214	23	42	157	222	21	33	114	167	22	30	133	194
Fennville	218	47	64	76	187	42	56	70	168	45	60	69	174
Fenton	504	160	168	260	588	141	126	195	462	135	157	247	539
Fife Lake	132	34	37	39	110	29	35	38	102	32	31	36	99
*Flushing	189												
Ford	488		162	139	301		139	117	256		121	129	280
Forestville	94		36	50	86		36	50	86		35	33	68
*Fowler													
Fowlerville	210	62	69	80	211	55	63	76	194	59	65	74	198
*Frankenmuth													

*Not legally graded.
†No report received.

TABLE XVII.—*Continued.*

Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. of special teachers.
				High school department.		Grammar department.		Primary department.		Whole school.			
High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
97	97	95	96	.5	5	.....	4	.....	4	1	13	1-2	1
97	95	96	96	1.7	1.5	.....	2.5	.....	3	2	7	3-7	.....
94	87	89	90	.8	1	.....	1	.....	1	1	3	1-5	.....
89	69	80	80	1	.....	.....	1	.....	1	1	2	.....	.....
96	99	90	95	1	1	.....	1	.....	2	1	4	.....	.....
93	95	91	93	.6	2	.....	2	.....	2	1	6	2-5	.....
94	93	93	93	.3	1.5	.....	2	.....	2	1	5.5	2-3	.5
83	85	76	81	.7	2	.....	2	.....	2	1	6	1-3	.....
96	94	92	94	.8	1	.....	2	.....	3	1	6	1-4	1
96	96	94	95	.9	1	.....	1	.....	1	1	3	1-8	.....
97	95	88	94	.8	1	.....	2	.....	1	1	4	1-6	1
95	96	93	94	.7	3	.....	2	.....	3	1	8	1-7	.....
95	93	93	94	.7	2	1	1	.....	2	2	5	1-7	.....
94	84	86	88	1	.....	.....	1	.....	1	1	2	.....	.....
89	80	94	87	1	.....	.....	1	.....	1	1	2	.....	.....
96	98	97	97	1	.....	.....	2	.....	1	1	3	.....	.....
94	93	93	93	1.8	.....	.....	2	.....	2	2	4	1-6	.....
82	70	65	72	2	.....	.....	2	.....	4	2	6	.....	1
97	91	91	93	.7	2.4	1	1.6	.....	3	2	7	1-7	.....
60	90	68	72	.8	1	.....	1	.....	1	1	3	.....	.....
93	94	91	92	1	1	.....	1	.....	2	1	4	.....	.....
92	85	80	85	1	.....	.....	2	.....	2	1	4	.....	.....
98	98	96	97	1	3	.....	2	.....	2	1	7	.....	1
93	81	82	85	.8	1	.....	1	.....	1	1	3	1-6	.....
71	75	65	70	1	.....	.....	1	.....	1	1	2	.....	.....
94	93	90	92	1	2	.....	2	.....	2	1	6	.....	1
98	94	95	96	1.7	2	.....	4	.....	4	2	10	1-3	2
.....	83	89	86	.....	.....	.....	1	.....	3	.....	4	.....	1
94	94	92	93	.3	4	1	5.3	.....	8.7	2	17	2-3	1
93	95	89	92	1	1	.....	1.6	.....	2.4	1	5	.....	.....
96	97	97	97	1.3	3	.....	4	.....	8	2	15	5-7	1
86	82	94	87	.8	1	.....	1	.....	3	1	5	1-6	.....
89	92	95	92	1.5	1	.....	2	.....	2	2	5	1-2	.....
80	83	65	76	.8	1	.....	3	.....	1	1	5	1-6	.....
.....	65	60	62	.....	.....	1	1	.....	2	1	3	.....	1
81	79	90	83	1.7	2	.....	2	.....	4	2	8	.....	.....
94	83	83	86	1	.....	.....	1	.....	2	1	3	.....	.....
80	88	68	79	.8	1	.....	1	.....	2	1	4	1-6	.....
97	93	85	92	1	1	1	.....	.....	3	2	4	.....	.....
96	95	91	94	1	1	.....	1.5	.....	1.5	1	4	.....	.....
97	94	95	95	2	3	.....	4	.....	6	2	13	3-7	1
95	83	85	87	1	.....	.....	1	.....	1	1	2	.....	.....
.....	75	93	89	.....	.....	1	5	.....	4	1	9	.....	.....
.....	70	66	68	.....	.....	1	.....	.....	1	1	1	.....	.....
96	95	92	94	.5	2	1	1	.....	2.5	2	2.5	1-2	.5

TABLE XVII.—*Continued.*

Incorporated villages.	School population from inspectors' reports.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Chelsea	484	133	130	118	381	122	110	109	341	129	126	112	367
Chesaning	371	73	94	135	302	65	82	111	258	70	89	129	288
Clarkston	131	47	38	38	123	43	35	32	110	44	33	33	110
Clayton	92	35	26	26	87	35	26	25	86	31	18	21	70
*Clifford													
Climax	115	35	35	61	131	31	30	55	116	33	34	54	121
Clinton	187	86	45	59	190	75	44	58	177	79	42	53	174
Clio	217	39	85	101	225	34	64	66	164	36	79	93	208
Coloma	382	75	67	87	229	70	65	80	215	62	58	66	186
Colon	205	58	40	88	186	54	37	78	169	55	37	80	172
Columbiaville	96	34	33	55	122	30	32	41	103	32	31	51	114
Concord	137	40	53	60	153	35	50	53	138	35	47	47	129
Constantine	242	87	58	125	270	80	53	105	238	82	55	103	240
Coopersville	240	70	88	109	267	65	79	94	238	66	81	101	248
Copemish	143	37	45	61	143	37	45	61	143	35	38	53	126
*Croton													
Custer	108	33	31	26	90	28	30	22	80	29	24	24	77
*Daggett													
Dansville	91	31	38	29	98	26	32	24	82	29	37	28	94
Davison	190	66	65	62	193	58	56	48	162	62	60	67	189
Dearborn	358	40	83	179	302	37	71	140	248	33	58	117	208
Decatur	367	80	114	178	372	72	98	143	313	77	103	161	341
Deckerville	193	47	41	114	202	47	41	114	202	28	37	78	143
Deerfield	185	38	45	88	171	38	45	88	171	35	42	80	157
Dimondale	97				70								68
Detour	327	28	80	107	213	26	68	86	180	26	68	86	180
Dexter	221	92	72	68	232	88	68	65	221	90	70	65	225
Douglas	138	42	35	43	120	42	35	34	111	38	28	35	101
Dryden	129	28	40	55	123	41	41	41	123	20	30	36	86
Dundee	289	78	85	100	263	72	70	81	223	73	59	81	213
Durand	549	68	182	236	486	63	146	178	387	66	171	224	461
*Eagle													
East Grand Rapids	175		37	95	132		29	77	106		30	84	114
East Jordan	943	107	194	395	696	90	162	287	539	100	182	363	645
†Eau Claire	111												
†Ecorse	306												
Edmore	256	54	71	114	239	44	62	79	185	50	67	101	218
Elk Rapids	513	100	153	243	496	87	135	212	434	96	148	235	479
Elkton	262	44	92	122	258	38	80	104	222	37	75	114	226
Elsie	201	67	57	71	195	66	56	78	200	60	53	68	181
*Emmett													
Empire	214	20	90	82	192	18	83	60	161	16	75	54	145
Essexville	512		55	97	152		42	71	113		36	58	94
Evart	437	120	106	183	409	109	93	176	378	97	80	162	339
Fairgrove	124	23	31	76	130	20	28	53	101	21	25	63	109
Farmington	153	33	55	78	166	28	48	62	138	26	47	53	126
Farwell	214	23	42	157	222	21	32	114	167	22	30	133	194
Fennville	218	47	64	76	187	42	56	70	168	45	60	69	174
Fenton	504	160	168	260	588	141	126	195	462	155	157	247	559
Fife Lake	132	34	37	39	110	29	35	38	102	33	31	36	99
†Flushing	189												
Ford	488		162	139	301		139	117	256		121	139	260
Forestville	94		36	50	86		36	50	86		25	33	58
*Fowler													
Fowlerville	210	62	69	80	211	55	63	76	194	59	65	74	198
*Frankenmuth													

*Not legally graded.
†No report received.

TABLE XVII.—*Continued.*

Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. of special teachers.
				High school department.		Grammar department.		Primary department.		Whole school.			
High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
97	97	95	96	.5	5	.....	4	.....	4	1	13	1-2	1
97	95	96	96	1.7	1.5	.....	2.5	.....	3	2	7	3-7	.....
94	87	89	90	.8	1	.....	1	.....	1	1	3	1-5	.....
89	69	80	80	1	.....	.....	1	.....	1	1	2	.....	.....
96	99	90	95	1	1	.....	1	.....	2	1	4	.....	.....
93	95	91	93	.6	2	.....	2	.....	2	1	6	2-5	.....
94	93	93	93	.3	1.5	.....	2	.....	2	1	5.5	2-3	.5
83	85	76	81	.7	2	.....	2	.....	2	1	6	1-3	.....
96	94	92	94	.8	1	.....	2	.....	3	1	6	1-4	1
96	96	94	95	.9	1	.....	1	.....	1	1	3	1-8	.....
97	95	88	94	.8	1	.....	2	.....	1	1	4	1-6	1
95	96	93	94	.7	3	.....	2	.....	3	1	8	1-7	.....
95	93	93	94	.7	3	1	1	.....	2	2	5	1-7	.....
94	84	86	88	1	.....	.....	1	.....	1	1	2	.....	.....
89	80	94	87	1	.....	.....	1	.....	1	1	2	.....	.....
96	98	97	97	1	.....	.....	2	.....	1	1	3	.....	.....
94	93	93	93	1.8	.....	.....	2	.....	2	2	4	1-6	.....
82	70	65	72	2	.....	.....	2	.....	4	2	6	.....	1
97	91	91	93	.7	2.4	1	1.6	.....	3	2	7	1-7	.....
60	90	68	72	.8	1	.....	1	.....	1	1	3	.....	.....
93	94	91	92	1	1	.....	1	.....	2	1	4	.....	.....
92	85	80	85	1	.....	.....	2	.....	2	1	4	.....	.....
98	98	96	97	1	3	.....	2	.....	2	1	7	.....	1
93	81	82	85	.8	1	.....	1	.....	1	1	3	1-6	.....
71	75	65	70	1	.....	.....	1	.....	1	1	2	.....	.....
94	93	90	92	1	2	.....	2	.....	2	1	6	.....	1
98	94	95	96	1.7	2	.....	4	.....	4	2	10	1-3	2
.....	83	89	86	.....	.....	.....	1	.....	3	.....	4	.....	1
94	94	92	93	.3	4	1	5.3	.....	8.7	2	17	2-3	1
93	95	89	92	1	1	.....	1.6	.....	2.4	1	5	.....	.....
96	97	97	97	1.3	3	.....	4	.....	8	2	15	5-7	1
86	82	94	87	.8	1	.....	1	.....	3	1	5	1-6	.....
89	92	95	92	1.5	1	.....	2	.....	2	2	5	1-2	.....
80	83	65	76	.8	1	.....	3	.....	1	1	5	1-6	.....
.....	65	60	62	.....	.....	1	1	.....	2	1	3	.....	1
81	79	90	83	1.7	2	.....	2	.....	4	2	8	.....	.....
94	83	83	86	1	.....	.....	1	.....	2	1	3	.....	.....
80	88	68	79	.8	1	.....	1	.....	2	1	4	1-6	.....
97	93	85	92	1	1	1	.....	.....	3	2	4	.....	.....
96	95	91	94	1	1	.....	1.5	.....	1.5	1	4	.....	.....
97	94	95	95	2	3	.....	4	.....	6	2	13	3-7	1
95	83	85	87	1	.....	.....	1	.....	1	1	2	.....	.....
.....	75	93	89	.....	.....	1	5	.....	4	1	9	.....	.....
.....	70	66	68	.....	.....	1	.....	.....	1	1	1	.....	.....
96	95	92	94	.5	2	1	1	.....	2.5	2	2.5	1-2	.5

TABLE XVII.—*Continued.*

Incorporated villages.	School population from inspectors' reports.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary depar tment.	Whole school.
Frankfort	590	85	196	303	584	75	154	228	457	82	190	278	550
*Fraser													
Freeport	135	45	23	73	141	44	23	73	140	43	22	67	132
Freemont	530	124	142	273	539	108	126	207	441	117	133	253	503
Fruitport	127	22	33	51	106	20	29	45	94	18	26	41	85
Gagetown	193	25	23	32	80	23	20	29	72	16	18	26	60
Gaines	104	26	58	47	131	24	52	44	120	22	56	41	119
Galesburg	175	54	57	73	184	46	48	64	158	45	47	54	146
†Galien	143												
*Garden													
Gaylord	498					62	130	142	334	60	128	139	327
‡Glenwood													
Gobleville	167	71	61	65	197	65	55	58	178	66	53	55	174
Grandville	329	61	82	133	276	60	47	38	145	51	59	98	208
Grant	158	18	41	61	120	15	30	49	94	14	36	51	101
Grass Lake	207	73	66	83	222	73	66	83	222	58	51	65	174
Grayling	602	60	210	211	481	50	190	185	425	40	178	165	383
*Grosse Pointe													
Grosse Pointe Farms			81	92	173		63	76	139		71	80	151
*Grosse Pointe Park													
Hamtramck	1,238		121	572	693		104	406	510		113	509	622
†Hanover	108												
Harbor Springs	883	65	157	246	468	62	138	206	406	60	149	228	437
Harrietta	139	21	32	66	119	21	32	66	119	17	28	58	103
Hart	499	114	152	259	525	106	135	230	471	94	120	188	402
Hartford	365	98	104	131	333	96	103	133	342	93	92	123	308
Hersey	124	28	48	40	116	25	44	30	99	25	44	36	105
Hesperia	155	44	46	81	171	37	42	53	132	41	41	72	154
Highland Park	875		182	354	536		160	298	458		150	271	421
†Hillman	288												
Holly	416	82	117	156	355	74	104	145	323	80	113	146	339
Homer	226	75	65	92	232	68	60	90	218	70	60	97	227
Houghton	2,707	236	536	1,363	2,135	214	402	1,004	1,620	224	503	1,240	1,967
Howard City	302	66	80	183	329	60	71	138	269	59	68	150	277
Howell	537	142	185	276	603	126	155	204	489	136	172	253	561
Hubbardston	133	26	34	35	95	19	30	28	77	24	31	31	86
§Hubbell													
Imlay City	331	88	88	135	311	81	84	127	292				
Iron River	860	54	182	390	626	49	139	421	609	51	176	315	542
Ithaca	504	129	157	263	549	120	151	213	484	125	149	236	510
Jerome	87	13	18	31	62	16	26	25	67	12	17	29	58
Jonesville	334	88	101	142	331	73	85	115	273	80	94	127	301
Kalkaska	362	63	115	205	383	42	95	153	290	41	89	138	268
Kent City	161	60	42	73	175	57	32	71	160	51	30	63	144
Kinde	174		67	85	152		50	63	113		40	51	91
Kingsley	206	16	61	114	191	13	34	100	147	12	51	82	145
Kingston	143					39	34	32	105	32	31	27	90
Laingsburg	139	41	46	73	160	37	39	56	132	38	41	64	143
Lake Ann	89				79				82				49
Lake City	286	58	103	143	304	52	78	97	227	45	79	80	204
Lake Linden	1,894	147	181	390	718	136	160	360	656	138	175	371	684
Lake Odessa	324	87	103	132	322	79	94	111	284	85	95	110	290
Lakeview	308	112	86	129	327	103	83	106	292	107	78	122	307
L'Anse	653	31	214	275	520	31	205	270	506	30	190	266	486
‖Laurium													

*Not legally graded. †No report received. ‡Report included in Wyandotte. §Report included in Lake Linden.
‖Report included in Calumet.

TABLE XVII.—*Continued.*

Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. special teachers.
				High school department.		Grammar department.		Primary department.		Whole school.			
High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
97	97	92	95	.5	2	.....	4	.....	7	1	13	1-2	1
97	96	92	95	.8	1	1	.....	.....	2	2	3	1-6	.....
95	94	93	94	1.5	2	.....	4	.....	5	2	11	3-4	1
81	78	80	80	1	.....	.....	1	.....	1	1	2	.....	.....
67	82	83	77	1	.....	1	.....	.....	1	1	2	.....	.....
87	97	89	91	1	.....	.....	1	.....	1	1	2	.....	.....
83	83	73	79	2	1	1	1	.....	2	3	4	.....	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
95	85	90	90	1	3	.....	4	.....	5	1	12	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
94	87	86	89	1	1	1	.7	.....	1.3	2	3	.....	.....
85	73	74	77	1	1	.....	2.5	.....	2.5	1	6	.....	.....
80	90	85	85	1	.....	.....	1	.....	1	1	2	.....	.....
78	78	78	78	1	3	.....	2	.....	2	1	7	1-6	.....
66	84	78	76	.5	2	.....	4	.....	5	1	11	1-2	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	88	87	87	.....	.....	.....	2	.....	3	.....	5	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	94	89	91	.....	.....	1	3	.....	10	1	13	1-4	2
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
93	95	93	94	1.5	2	.....	4	.....	5	2	11	1-2	2
79	86	85	83	1	.....	.....	1	.....	2	1	3	.....	.....
89	88	71	83	2.4	2	.....	4	.....	5	3	11	3-5	1
95	90	91	92	.8	2	.....	3	.....	3	1	8	1 4	.....
90	92	90	91	.8	1	.....	2	.....	1	1	4	1-6	.....
95	91	90	92	.5	1	.....	2	.....	2	1	5	1-2	.....
.....	92	89	90	.....	.....	1	5	.....	8	1	13	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
98	97	94	93	1	2	.....	3	.....	3	1	8	.....	1
94	93	95	94	1	3	.....	3	.....	2	1	8	1-7	1
95	94	91	93	6	5	2	10	.....	34	8	49	All	4
90	85	82	85	.7	2	.....	2	.....	3	1	7	1-3	1
96	93	92	94	1	4	.....	5	.....	8	1	17	4-7	1
93	93	89	91	1	.....	.....	1	.....	1	1	2	.....	.....
92	95	94	94	.7	2.5	.....	2	.....	3	1	7.5	1-3	.5
96	97	81	91	3	1	.....	6.5	.....	11.5	3	19	7-8	1
97	95	90	94	1.4	4	.....	4	.....	4	2	12	3-7	2
96	97	95	96	1	.....	.....	1	.....	1	1	2	.....	.....
92	94	90	92	1	3	.....	2	.....	3	1	8	.....	.....
66	77	71	71	2	2	.....	3	.....	5	2	10	.....	.....
90	95	93	93	1	.....	.....	1	.....	2	1	3	.....	.....
.....	59	60	59	.....	.....	1	.....	.....	1	1	1	.....	.....
81	85	72	79	.8	.....	.....	2	.....	2	1	4	1-4	.....
88	90	83	87	1	.....	.....	1	.....	1	1	2	.....	.....
94	91	88	91	.8	1	1	1	.....	1	2	3	1-6	.....
.....	.....	.....	65	.....	.....	.....	.....	.....	.....	.....	2	.....	.....
77	74	60	70	.8	1	.....	2.5	.....	2.5	1	6	1-6	.....
94	97	95	95	4	4	.....	.7	.....	14	4	25	All	2
98	93	84	92	1.7	1	.....	3	.....	4	2	8	3-8	1
96	91	95	94	2	1	1	1	.....	3	3	5	.....	.....
90	89	89	90	1.5	2	1	5	.....	5	3	12	1-2	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XVII.—*Continued.*

Incorporated villages.	School population from inspectors' reports.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
Lawrence	137	71	75	73	219	65	69	66	200	66	70	64	200
Lawton	238	67	79	94	240	51	59	70	180	62	74	87	223
Leonard	131	32	28	47	107	24	27	35	86	25	24	38	87
LeRoy	165	23	43	77	143	22	38	63	123	20	40	72	132
Leslie	345	85	90	110	285	78	85	95	258	81	81	88	250
Lexington	143	26	49	45	120	21	42	42	105	23	46	39	108
*Lincoln													
Linden	146	41	29	89	159	35	28	72	135	38	26	78	142
Lisbon	96		41	39	80		33	28	61		30	23	53
Litchfield	153	59	46	70	175	51	42	69	162	49	34	61	144
Lowell	483	131	143	231	505	123	124	215	462	113	114	184	411
Luther	240	21	77	90	188	17	68	81	166	19	71	76	166
Lyons	165	42	63	61	166	38	55	54	147	36	57	53	146
Mackinaw City	209	18	54	109	181	18	54	109	181	14	44	82	140
Mancelona	488	83	114	350	547	89	100	274	463	79	83	227	389
Manchester	295	100	80	100	280	83	40	31	154	96	75	95	266
Manton	368	84	141	196	421	72	111	184	367	79	119	192	390
Maple Rapids	132	31	36	57	124	28	25	41	94	28	25	35	91
Marcellus	220	59	77	91	227	47	67	76	190	57	74	85	216
Marion	253	49	80	130	259	43	79	121	243	43	72	107	222
*Marlborough													
Marlette	311	95	96	115	306	88	92	99	279	89	89	104	282
*Maybee													
Mayville	217	65	46	96	207	64	44	79	187	60	39	68	167
McBride	130	28	47	36	111	28	47	36	111				89
Mecosta	114	26	32	40	98	26	32	40	98	20	26	27	73
*Melvin													
Memphis	183	67	49	55	171	62	49	51	162	61	44	45	150
Mendon	195	85	71	79	235	71	60	68	199	82	67	74	223
*Merrill													
Mesick	197	21	41	91	153	18	35	68	121	19	37	81	137
Metamora	82	25	32	37	94	22	22	27	71	21	28	32	81
Middleville	220	55	66	98	219	44	50	78	172	52	62	73	207
*Mikado													
Milan	347	72	98	184	354	62	84	146	292	68	91	169	328
Milford	247	92	56	106	254	83	51	82	216	82	50	97	229
Millersburg	186	59	86	50	195	59	86	50	195	53	79	41	173
Millington	196	78	66	71	215	72	64	65	201	71	56	54	181
Minden	181				128	29	40	59	128				125
Montague	226	43	95	52	190	43	95	52	190	39	89	48	176
Montgomery	109				109								98
Montrose	139	17	47	81	145	15	36	58	109	14	32	59	105
Morenci	330	80	108	147	335	78	102	130	305	76	95	138	309
Morley	131	15	42	43	100	15	42	43	100				87
Morrice	123	34	41	54	129	33	39	44	116	30	39	52	121
Mt. Morris	249	66	52	70	188	50	44	51	145	58	48	63	169
Muir	103	31	16	53	100	29	15	51	95	26	15	45	86
*Mulliken													
Munising	830	66	154	430	650	62	146	418	626	59	127	397	583
Nashville	298	81	82	162	325	70	71	141	282	78	78	149	305
*Naubinway													
Newaygo	468	67	121	220	408	57	100	167	324	62	110	195	367
New Baltimore	194	32	48	91	171	30	46	86	162	27	43	75	145
Newberry	569	65	183	409	657	59	135	243	437	63	177	376	616
*New Boston													

*Not legally graded.

TABLE XVII.—*Continued.*

Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. of special teachers.
				High school department.		Grammar department.		Primary department.		Whole school.			
High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
94	94	89	92	.8	3	1	2	.....	2	1	7	1-4	.....
94	94	93	94	1.2	1	.....	2	.....	2	2	5	2-4	.....
79	88	82	80	1	.....	.....	1	.....	1	1	2	.....	.....
91	94	94	93	1.8	.....	.....	1.3	.....	1.7	2	3	1-6	.....
96	90	80	89	.8	2	1	1	.....	3	2	6	1-6	.....
92	95	87	91	1	1	.....	1	.....	2	1	4	1-8	.....
93	93	88	89	1.1	.....	.....	1	.....	2	2	3	1-8	.....
...	90	86	88	.....	.....	.....	1	.....	1	.....	2	.....	.....
96	83	89	89	1	1	1	.....	.....	2	2	3	.....	.....
94	88	84	89	1	4	.....	4	.....	7	1	15	1-4	.....
93	93	85	90	1	.....	.....	2	.....	2	1	4	1-8	.....
86	92	88	89	1	1	.....	1	.....	2	1	4	.....	.....
87	84	75	80	1	.....	1	.....	.....	2	2	2	.....	.....
88	83	82	85	1.5	2	1	2	.....	7	3	11	1-2	2
96	94	95	95	.4	3	.....	3	.....	3	1	9	3-7	1
95	85	98	92	.6	3	.....	4	.....	4	1	11	2-7	.....
92	82	72	79	1	1	.....	1	.....	1	1	3	.....	.....
97	96	94	96	1	2	.....	2	.....	2	1	6	1-8	1
87	91	88	86	2	1	.....	2	.....	4	2	7	.....	.....
94	93	91	93	1.6	2	.....	3	.....	3	2	8	1-4	.....
94	88	83	88	1	1	.....	1	.....	2	1	4	.....	.....
...	.....	.....	81	1	.....	.....	1	.....	1	1	2	.....	.....
76	81	67	74	1	.....	.....	1	.....	1	1	2	.....	.....
92	91	82	88	1	1	.....	1	.....	2	1	4	.....	.....
97	95	94	95	.6	3	.....	2	.....	2	1	7	1-4	.....
95	91	90	91	1	.....	.....	1	.....	2	1	3	.....	.....
86	90	88	88	1	.....	.....	1	.....	1	1	2	.....	.....
95	94	95	94	1	2	1	1	.....	2	2	5	.....	1
95	93	92	93	.4	2	.....	3	.....	3	1	8	1-6	.....
90	91	92	91	1	2	.....	2	.....	3	1	7	1-8	.....
91	92	83	89	1	1	.....	2	.....	1	1	4	.....	.....
86	85	77	82	1	1	.....	2	.....	2	1	5	1-8	.....
...	.....	.....	96	1	.....	.....	1	.....	1	1	2	.....	.....
92	94	93	93	1	1	.....	3	.....	1	1	5	.....	1
92	87	84	87	1	.....	.....	1	.....	2	1	3	.....	.....
95	88	94	92	.4	3	.....	3	.....	3	1	9	1-6	.....
...	.....	.....	80	1	.....	.....	1	.....	1	1	2	.....	.....
90	97	97	94	1	1	.....	1.3	.....	1.7	1	4	.....	.....
86	90	80	89	1	1	.....	1	.....	1	1	3	.....	.....
93	93	96	91	1	.....	.....	1	.....	2	1	3	.....	.....
91	89	88	89	25	1	1	5	.....	9	4	15	1-2	1
94	96	92	93	1.7	2	.....	2	.....	4	2	8	.....	1
93	91	89	91	.7	2	1	2	.....	4	2	8	2-7	.....
94	95	91	93	1	2	.....	2	.....	2	1	6	.....	.....
98	97	92	96	2	2	1	4	.....	10	3	16	.....	.....

TABLE XVII.—*Continued.*

Incorporated villages.	School population from inspectors' reports.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
New Buffalo	168	23	56	53	132	21	51	53	125	17	49	32	98
New Haven	135	41	40	44	125	36	34	39	109	36	37	39	112
North Adams	117	91	41	34	166	85	32	32	149	86	36	29	151
North Branch	191	83	56	86	225	71	52	79	202	78	47	77	202
Northport	216	39	68	98	205	37	59	79	175	34	52	68	154
†Northville	426												
Oakley	73		30	38	68		30	38	68				
Olivet	183	61	62	50	173	54	58	44	156	55	55	44	154
Onekama	138	39	33	42	114	31	27	32	90	31	27	32	90
Ontonagon	721	88	209	309	606	75	189	280	544	71	175	250	496
Orion	201	44	57	83	184	40	52	71	163	38	51	73	162
Ortonville	125	37	46	52	135	36	42	50	128	34	36	44	114
Oscoda	425	42	82	171	295	41	74	139	254	39	72	125	237
Otisville	136	43	39	46	128	35	30	40	105	39	33	33	105
Otsego	726	114	248	278	640	100	180	198	478	111	240	258	609
Otter Lake	110		31	56	87		28	47	75		22	43	65
Ovid	266	116	106	155	377	110	100	100	310	111	102	150	363
*Owendale													
Oxford	280	57	82	140	279	51	65	102	218	54	78	128	260
Parma	162	43	26	91	160	42	25	90	157	41	25	87	153
Paw Paw	401	140	121	144	405	121	107	114	342	133	116	136	385
Peck	90		42	37	79		42	48	90				
Pellston	406	51	139	219	409	45	115	124	284	42	103	99	244
Pentwater	322	49	122	121	292	42	95	87	224	48	114	111	273
*Perrinton													
Perry	192	30	71	80	181	27	68	73	168	27	66	72	165
Petersburg	238	56	73	99	228	51	65	87	203	53	66	87	206
Pewamo	128	19	31	28	78	17	26	21	64	16	26	24	66
Pierson	113		42	41	83		41	34	75		35	30	65
Pigeon	299	46	75	95	216	41	69	88	198	41	67	85	193
Pinckney	130	36	41	57	134	35	32	50	117	35	40	51	126
Pinconning	342	28	86	120	234	25	75	99	199	25	75	99	199
Plainwell	382	76	104	137	317	67	83	109	259	73	89	123	285
Plymouth	481	116	136	220	472	106	113	173	392	109	129	198	436
Port Austin	241	17	75	118	210	15	59	97	171	15	65	93	173
Port Hope	140	18	28	36	82	13	26	32	71	14	25	33	72
Portland	350	90	165	155	410	85	100	150	335	82	147	139	368
Port Sanilac	111	22	29	41	92	17	29	40	86	17	27	32	76
*Posen													
Potterville	146	19	41	82	142	17	40	73	130	32	34	69	135
Quincy	257	103	83	74	260	101	73	66	240	98	73	64	235
Reading	255	102	85	91	278	89	79	78	246	95	79	82	256
*Redford													
‡Red Jacket													
Reed City	501	98	137	183	418	83	114	147	344	94	128	172	394
*Reese													
Richland	78	22	22	31	75	22	22	31	75	20	19	25	59
Richmond	332	52	89	163	304	46	77	139	262	43	76	142	261
River Rouge	1,209	48	225	633	906	44	196	578	818	38	180	515	734
Rochester	380	61	94	183	338	55	76	146	277	57	84	161	302
Rockford	226	38	95	90	223	35	89	86	210	33	87	83	203
Rogers	318	29	59	153	241	26	48	139	213	22	48	110	180
Romeo	400	85	111	170	366	74	99	137	310	84	107	161	352
Roscommon	117	16	50	50	116	16	50	50	116	13	43	43	99
Royal Oak	459	51	124	161	336	50	119	145	314	47	112	119	278

*Not legally graded.
†No report received.
‡Report included in Calumet.

TABLE XVII.—*Continued.*

Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. of special teachers.
				High school department.		Grammar department.		Primary department.		Whole school.			
High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
77	87	62	75	.5	1	.....	1	.....	1	1	3	1-5	.....
90	93	90	91	1	.....	.....	1	.....	1	1	2	.....	.....
95	94	87	92	2	2	1	1	.....	1	3	4	.....	.....
95	83	91	92	1	2	.....	2	.....	2	1	6	.....	.....
92	90	86	89	1	2	.....	1	.....	3	1	6	.....	.....
.....	.....	.....	70	.....	.....	1	.....	.....	1	1	1	.....	.....
91	90	89	91	.6	2	.....	2	.....	2	1	6	1-4	1
80	81	76	78	1	.....	.....	1	.....	1	1	2	.....	.....
80	83	80	81	.2	4	.....	6	.....	13	1	23	.....	.....
87	91	88	89	.5	1	.....	2	.....	2	1	5	1-5	1
93	70	86	84	1	.....	.....	1	.....	1	1	2	.....	.....
97	96	90	90	.6	1	.....	2	.....	3	1	6	1-4	.....
93	87	72	84	1	.....	.....	1	.....	1	1	2	.....	1
98	97	93	96	2	3	.....	4.5	.....	5.5	2	13	.....	2
.....	70	76	78	.....	.....	1	.....	.....	1	1	1	.....	.....
96	97	98	97	1	3	.....	3	.....	3	1	9	1-4	.....
96	96	92	94	1.7	2	.....	2	.....	2	2	6	1-3	1
95	96	97	96	.8	.....	.....	1	.....	3	1	4	.....	1
95	96	95	95	2	2	.....	3	.....	2	2	7	.....	2
.....	.....	.....	.....	.....	.....	1	.....	.....	1	1	1	.....	.....
93	90	80	85	.8	2	.....	3	.....	4	1	9	1-6	.....
98	94	92	95	.5	2.4	.....	2.3	.....	3.3	1	.8	1-2	1
92	94	90	92	1	1	1	1	.....	2	2	4	1-6	.....
96	91	88	91	1	1	.....	1.5	.....	2.5	1	5	.....	.....
88	87	88	87	1	.....	.....	1	.....	1	1	2	.....	.....
.....	84	74	78	.....	.....	1	.....	.....	1	1	1	.....	.....
89	90	89	89	1	1	.....	2	.....	2	1	5	.....	.....
98	98	91	96	.8	1	1	1	.....	1	2	3	1-4	.....
89	86	82	85	.7	1	.....	2	.....	2	1	5	1-3	.....
97	86	90	91	.5	3	.....	2.5	.....	3.5	1	9	1-2	2
94	95	90	93	.5	4	.....	4	.....	5	1	13	1 2	3
93	87	81	84	.8	1	1	.5	.....	2.5	2	4	1-6	.....
80	90	92	87	1	.....	.....	1	.....	1	1	2	.....	.....
90	90	90	90	1.5	3	.....	4	.....	4	2	11	1 2	1
89	90	79	86	1	.....	.....	1	.....	1	1	2	.....	.....
82	84	85	84	1	.....	.....	1	.....	2	1	3	.....	.....
96	93	87	92	1	3	1	1	.....	2	2	6	.....	.....
94	93	91	92	1.7	1.5	.....	2	.....	2	2	5.5	2-7	.5
96	94	94	95	2	2	.....	4	.....	6	2	12	3-7	1
92	90	87	89	1	1	.....	1	.....	1	1	3	.....	.....
84	85	87	85	.5	3	.....	2	.....	4	1	9	1-2	.....
87	91	89	88	.5	5	1	7	1	16	3	28	1-2	.....
95	90	88	91	.8	2	.....	2	.....	3	1	7	1-5	.....
93	91	92	92	1	1	.....	2	.....	2	1	5	.....	.....
78	77	87	81	1	.....	.....	1	.....	3	1	4	.....	.....
99	97	95	96	.5	3	.....	2.5	.....	3.5	1	9	1-2	1
86	86	86	86	1	1	.....	1	.....	1	1	3	.....	.....
92	90	73	81	.8	3	.....	2	.....	3	1	8	1-4	1

TABLE XVII.—*Concluded.*

Incorporated villages.	School population from inspectors' reports.	Enrollment.				Average number belonging.				Average daily attendance.			
		High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.
St. Charles	548	29	111	215	355	28	114	209	351	27	106	200	333
*St. Clair Heights													
Saline	200	62	62	67	191	55	54	55	164	58	58	64	180
†Sand Lake	137												
Saranac	242	68	95	96	259	62	79	79	220	64	86	82	242
Saugatuck	201	40	19	99	158	58	23	81	162	30	17	79	126
Schoolcraft	180	49	67	65	181	46	63	62	171	47	62	59	168
Sebewaing	538	42	113	199	354	38	92	151	281	37	100	183	320
Shelby	362	104	129	150	383	94	112	132	348	99	123	141	363
Shepherd	272	58	70	114	242	56	67	108	231	53	66	99	218
Sheridan	154	50	45	60	155	50	45	60	155	45	36	45	126
Sherman	142	13	75	45	133	12	58	30	100	12	68	42	122
Sherwood	116	27	48	48	123	26	46	48	120	24	46	43	113
*Sibley													
South Frankfort	216	24	110	46	180	21	94	35	150	21	100	38	259
South Lyon	168	44	36	80	160	40	35	80	153	35	34	70	146
Sparta	344	86	97	139	322	83	77	122	282	83	92	129	204
Spring Lake	203	7	60	94	161	7	50	73	130	6	57	89	152
Springport	143	53	73	23	149	41	66	22	129	41	60	19	120
Stambaugh	951	54	188	503	745	49	168	455	672	44	167	452	663
Stanwood	127	28	30	35	93	25	30	28	83	25	24	22	70
†Stephenson	1,301												
Stevensville	230	35	24	77	136	32	21	61	114	31	21	70	122
Stockbridge	173	76	67	63	206	72	60	57	189	70	59	51	180
Sunfield	126	40	23	36	99	32	20	31	83	36	21	32	89
Sutton's Bay	205	16	52	35	103	13	47	31	91	12	46	30	88
Tecumseh	473	160	156	232	548	152	149	172	473	153	151	222	526
Tekonsha	166	53	90	57	200	46	80	46	172	50	83	54	187
Thompsonville	307	32	152	102	286	30	119	89	238	28	136	78	242
Three Oaks	355	60	106	136	302	56	93	107	256	58	100	130	288
Trenton	419	32	109	180	321	26	89	176	291	30	101	160	291
Tustin	152	36	82	49	167	34	78	45	157	33	72	40	145
†Twining	178					51	51	40	142	51	51	34	136
Ubly	161	52	62	50	164	37	42	52	131	37	38	32	107
Union City	330	83	108	175	366	73	91	134	298	79	103	157	339
Unionville	199	43	53	96	192	40	46	81	167	34	44	52	130
Utica	214	40	36	67	143	83	57	80	220	34	22	53	119
Vandalia	126	50	39	38	127	48	38	37	123	48	38	37	123
Vanderbilt	170	9	45	108	162	9	41	80	130	8	35	71	114
Vassar	463	110	98	199	407	100	90	114	304	106	86	183	375
Vermontville	165	66	42	79	187	56	41	51	148	62	35	71	168
Vernon	110	17	50	37	104	14	42	29	85	15	47	34	96
Vicksburg	329	73	85	150	308	67	75	126	268	62	70	116	249
Wakefield	845	22	210	464	696	18	201	438	657	19	200	401	620
Waldron	116	49	36	49	134	42	32	42	116	40	27	31	98
Warren	94	.....	20	41	61	.....	18	37	55	.....	14	31	45
Watervliet	274	60	78	146	284	57	65	122	244	55	61	103	219
Wayland	186	83	46	92	221	72	39	88	199	62	33	70	165
Wayne	401	109	119	186	414	104	98	135	337	105	110	169	384
Webberville	117	44	33	40	117	40	33	32	105	40	30	30	100
*Westphalia													
White Cloud	239	29	99	84	212	22	87	74	183	27	92	74	193
Whitehall	440	70	113	176	359	63	98	134	295	66	108	165	339
White Pigeon	182	57	80	75	212	49	55	69	173	55	77	69	201
Williamston	332	87	95	115	297	75	83	145	303	72	80	117	269
Wolverine	270	42	69	110	221	34	63	100	197	27	54	83	164
Woodland	65	28	23	35	86	28	23	35	86	27	22	27	76

*Not legally graded. †No report received.

TABLE XVII.—*Concluded.*

Percentage of attendance.				Number of regular teachers employed.								Portion of superintendent's time devoted to supervision.	No. of special teachers.
				High school department.		Grammar department.		Primary department.		Whole school.			
High school department.	Grammar department.	Primary department.	Whole school.	Men.	Women.	Men.	Women.	Men.	Women.	Men.	Women.		
94	94	94	94	.5	2	.....	4	.....	5	1	11	1-2	.....
94	95	96	95	.7	2	.....	2	.....	2	1	6	2-7	1
95	91	96	94	1	1.5	.....	2.5	.....	2	1	6	1-4	.....
75	89	79	79	1	1	.....	2	.....	2	1	5	.....	.....
97	93	92	94	.5	2	.....	2	.....	2	1	6	1-5	1
90	89	92	91	1	2	.....	2	.....	3	1	7	.....	.....
96	96	94	92	.3	3	.....	4	.....	3	1	10	2-3	1
92	93	87	90	1	1	.....	2	.....	3	1	6	.....	1
90	80	75	81	2	.....	.....	1	.....	1	2	2	1-6	.....
95	92	94	93	1	.....	.....	2	.....	1	1	3	.....	.....
92	96	91	93	1	.....	1	1	.....	1	2	2	.....	.....
91	91	83	88	.4	1	.....	1	.....	1	1	3	1-6	1
89	95	93	92	1	1	.....	1	.....	2	1	4	1-7	.....
97	95	93	95	1	2	.....	3	.....	3	1	8	1-4	.....
98	96	95	96	.8	.....	.....	2	.....	2	1	4	1-6	.....
78	83	86	83	1	1	.....	2	.....	1	1	4	.....	1
83	89	90	87	1.5	1	3	.....	3	15	8	16	1-2	1
89	80	62	70	1	.....	.....	1	.....	1	1	2	.....	.....
93	91	91	92	1	1	.....	1	.....	2	1	4	.....	.....
92	88	80	87	1.7	1	.....	1.3	.....	1.7	2	4	1-7	.....
92	94	90	91	1	1	.....	1	.....	1	1	3	.....	.....
78	89	88	85	1	.....	.....	2	.....	1	1	3	.....	.....
96	97	96	96	2	3	.....	4	.....	6	2	13	3-7	1
96	93	95	93	1	1	.....	1	.....	2	1	4	1-8	1
81	90	77	83	.7	1	.....	3	.....	2	1	6	1-3	.....
98	95	96	96	.4	2	.....	3	.....	3	1	8	3-7	1
95	93	89	92	.8	2	.....	3	.....	4	1	9	1-4	.....
92	90	90	90	1	.....	.....	2	.....	1	1	3	.....	.....
92	89	89	90	1	1	.....	1	.....	1	1	3	.....	.....
71	61	64	65	1	.....	.....	1	.....	1	1	2	.....	.....
96	96	90	94	1.5	2	.....	3	.....	5	2	10	1-2	1
79	83	54	68	1	.....	.....	1	.....	2	1	3	.....	.....
82	91	82	85	1	1	.....	1	.....	1	1	3	.....	.....
90	90	90	90	1	1	.....	1	.....	1	1	3	All	.....
88	77	65	70	1	.5	.....	1.5	.....	2	1	3	.....	.....
97	88	92	92	2	3	.....	3	.....	5	2	11	.....	1
94	85	90	89	1	2	.....	2	.....	2	1	6	1-4	.....
93	95	93	94	1	.....	.....	2	.....	1	1	3	.....	1
83	85	89	85	.8	3	1	2	.....	4	2	9	1-4	1
86	95	86	88	1.5	1	.....	5	.....	11	2	18	1-2	1
82	75	64	73	1	1	.....	1	.....	1	1	3	.....	.....
.....	78	76	77	.....	.....	1	.....	.....	1	1	1	.....	.....
96	93	84	90	.7	2	.....	2	.....	3	1	7	2-7	.....
75	72	76	74	1	1	.....	1	.....	2	1	4	.....	.....
97	93	91	94	.7	2.5	.....	2.5	.....	3	1	8	1-3	1
90	90	89	89	1	.....	.....	1	.....	1	1	2	.....	.....
95	93	89	93	1	1	.....	2	.....	2	1	5	.....	.....
95	96	94	95	1	2	.....	4	.....	3	1	9	.....	1
98	97	93	96	1	2	.....	2	.....	2	1	6	1-6	.....
96	96	81	91	.7	3	.....	2	.....	4	1	9	1-3	1
77	81	69	74	1	1	.....	2	.....	3	1	6	.....	.....
98	95	76	88	1	.....	.....	1	.....	1	1	2	.....	.....

TABLE XVIII.

Miscellaneous statistics of city and graded village schools

Incorporated cities.	Average number pupils to each teacher.				Number of non-resident pupils.				Rate of tuition per year.			Average age of class.			Number of graduates.
	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Graduated.	Promoted to high school.	Promoted to grammar department.	
Adrian	26	37	28	32	125	14	....	139	$30 00	$16 00	$12 00	18.6	14.4	10.2	53
Albion	24	73	22	39	45	....	....	45	20 00	20 00	13 30	16	12	8	25
Allegan	24	30	31	30	42	....	....	42	19 00	.....	.....	17	.....	.....	31
Alma	23	30	39	32	35	9	1	45	15 00	15 00	15 00	18	.....	.....	13
Alpena	21	29	32	29	....	....	....	....	.....	.....	.....	18.4	15.1	10.5	18
Ann Arbor	27	*33	.....	30	227	6	8	241	40 00	15 00	9 00	19.3	13.8	9.2	109
†Au Gres	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....
Au Sable	23	30	36	32	1	....	....	1	6 00	4 50	3 00	18	14	10	5
Bad Axe	....	37	45	41	....	5	3	8	.....	7 50	.....	.....	16	.....	3
Battle Creek	27	30	38	33	67	14	20	101	30 00	24 00	18 00	18	15	11	60
Bay City	20	25	28	26	73	29	21	123	25 00	15 00	10 00	18.6	15.2	11.5	82
Beaverton	15	35	30	26	....	....	....	24	6 75	.....	.....	.....	.....	.....	.....
Belding	18	36	41	33	27	2	....	29	16 00	16 00	16 00	17	13	9	11
Benton Harbor	23	31	35	31	49	5	7	61	28 00	18 00	18 00	18	.....	.....	43
Bessemer	24	30	35	30	14	1	....	15	.....	.....	.....	17	.....	.....	17
Big Rapids	17	39	27	28	20	....	....	20	20 00	15 00	12 00	18	14	.....	27
Boyne City	23	37	36	32	14	7	1	22	19 00	14 25	14 25	18	14.4	10.7	17
Brown City	24	44	44	35	31	8	11	50	20 00	15 00	10 00	.....	.....	.....	8
Cadillac	28	32	50	36	10	....	....	10	20 00	.....	15 00	18	14	11	20
Charlevoix	22	35	21	28	25	2	....	27	13 50	9 00	.....	17	13.5	.....	15
Charlotte	29	34	36	33	58	7	1	66	25 35	19 50	20 15	18	.....	.....	30
Cheboygan	15	35	34	28	35	2	2	39	20 00	20 00	15 00	18	14	.....	11
Clare	10	42	39	32	45	3	1	49	10 00	10 00	10 00	18	14	10	6
Coldwater	23	32	30	29	57	3	....	60	28 00	24 00	20 00	19	.....	.....	31
Coleman	27	27	50	33	12	....	....	12	10 00	.....	.....	18	.....	.....	4
Corunna	14	36	31	26	21	9	2	32	20 00	12 00	12 00	18.4	14.7	10.2	12
Croswell	27	26	35	30	39	5	1	45	15 00	15 00	15 00	19	14	9.5	17
Crystal Falls	14	27	29	31	3	....	....	3	.....	.....	.....	18	14	10	12
Detroit	20	24	36	30	....	....	....	224	40 00	14 00	14 00	.....	.....	.....	631
Dowagiac	22	33	37	33	....	....	....	....	16 00	12 00	10 00	18	15	11	13
East Lansing	20	35	50	31	2	1	3	6	7 20	7 20	7 20	.....	12	9	
East Tawas	18	41	36	32	10	2	....	12	10 00	10 00	10 00	18	14	10	12
Eaton Rapids	19	33	31	27	52	9	....	61	16 00	12 00	.....	18	14	.....	17
Escanaba	19	38	35	31	34	3	....	37	30 00	20 00	15 00	18	14	10	62
Flint	24	38	32	42	72	23	17	112	24 00	.....	.....	18	14	10	67
Gladstone	21	41	44	37	3	1	....	4	.....	.....	.....	18	14	11	20
‡Gladwin	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....
Grand Haven	24	36	36	32	27	2	2	31	20 00	15 00	10 00	18	.....	.....	30
Grand Ledge	26	34	48	33	46	8	1	56	15 00	10 00	10 00	18	.....	10	22
Grand Rapids	21	30	31	29	61	7	13	82	50 00	40 00	30 00	18.3	14.8	11.3	204
Greenville	20	25	39	29	31	7	....	38	25 00	14 00	12 00	18.5	14	10.5	
Hancock	20	34	39	34	17	1	....	18	48 00	20 00	20 00	18.2	14.2	10.3	16
‡Harbor Beach	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....
‡Harrison	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....
Harrisville	33	44	35	36	16	2	....	18	5 00	5 00	.....	18	14	.....	8
Hastings	23	43	23	29	82	3	2	87	25 00	16 00	14 00	19	15	10	44
Hillsdale	29	36	38	33	80	16	1	97	20 00	15 00	12 00	18.5	.....	.....	43
Holland	22	39	41	37	20	15	9	44	12 00	12 00	12 00	17.6	14	10	23
‡Hudson	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....
Ionia	16	25	25	23	50	47	12	109	20 00	15 00	10 00	18.3	14	10	18
Iron Mountain	24	37	34	34	3	....	....	3	15 00	10 00	10 00	18.6	14.6	10.6	33
Ironwood	27	41	33	34	7	....	....	7	45 00	25 00	25 00	18	12	8	26
Ishpeming	21	44	37	37	....	....	....	....	25 00	.....	.....	17.6	12.6	9.6	39
Jackson	22	34	36	33	63	21	13	97	20 00	16 00	12 00	18.7	15	11	50
Kalamazoo	21	29	33	28	50	49	19	118	38 00	19 00	12 16	18.8	....	....	91

*Includes grammar and primary grades. †Not legally graded. ‡No report received.

TABLE XVIII.

as reported by superintendents for the school year 1909-1910.

Number of U. S. flags.	Has school a kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of grades in the school.	Number of pupils studying—				Does school give special instruction in—						Has school a commercial course?	Is the compulsory attendance law enforced?	Has school an ungraded department?	Has school a day school for the deaf?
				Latin.	Greek.	French.	German.	Vocal music?	Drawing?	Penmanship?	Manual training?	Domestic science?	Agriculture?				
25	yes	1-3	12	80	....	20	80	yes	yes	no	yes	yes	no	yes	yes	no	no
5	no	1-3	12	....	....	....	....	yes	yes	no	yes	yes	no	yes	yes	no	no
....	no	1-2	12	6	....	....	....	yes	yes	no	yes	yes	no	yes	yes	no	no
2	yes	1-4	12	42	....	....	17	yes	yes	no	yes	yes	no	no	yes	no	no
10	no	.....	12	89	....	....	23	yes	yes	yes	no	no	no	yes	yes	no	no
7	yes	1-8	12	332	7	89	218	yes	yes	no	yes	yes	no	yes	yes	yes	no
2	yes	all	12	32	....	....	12	no	no	no	no	no	no	no	yes	no	no
1	no	.....	9	....	....	....	....	no	no	no	no	no	no	no	yes	no	no
11	yes	1-2	13	282	4	57	103	yes	yes	no	yes	yes	no	no	yes	yes	no
18	yes	.....	12	442	....	290	419	yes	yes	yes	yes	yes	no	yes	yes	no	yes
1	no	1-2	12	....	....	....	....	no	no	no	no	no	no	no	yes	no	no
3	yes	1-2	12	33	....	....	22	yes	yes	yes	yes	no	no	yes	yes	no	no
5	no	1-4	12	81	....	....	111	yes	yes	yes	yes	yes	no	yes	yes	no	no
4	yes	all	13	34	....	....	40	yes	yes	no	yes	yes	no	no	yes	no	no
4	no	1-4	12	50	....	....	23	yes	yes	no	no	no	no	yes	yes	no	no
2	yes	all	13	65	....	....	36	yes	yes	no	no	no	no	no	yes	no	no
1	yes	1-2	12	15	....	....	....	....	....	....	....	....	....	no	yes	no	no
4	yes	1-5	13	60	....	....	50	no	no	no	no	no	no	no	yes	yes	no
3	no	1-3	12	26	....	....	30	no	no	no	no	no	no	yes	yes	no	no
6	no	1-6	12	38	....	....	40	yes	yes	yes	yes	yes	yes	yes	yes	no	no
8	no	1-4	12	54	....	....	16	yes	yes	yes	yes	yes	no	yes	yes	no	no
1	no	1-5	12	15	....	....	19	yes	yes	no	no	no	no	no	yes	no	no
4	yes	.....	13	50	....	....	50	yes	yes	no	yes	yes	no	yes	yes	no	no
.....	no	1-4	12	....	....	....	....	no	no	no	no	no	no	yes	yes	no	no
1	yes	1-2	12	46	....	....	18	yes	yes	yes	no	no	no	no	yes	no	no
1	yes	3-4	12	34	....	....	11	no	no	yes	no	no	no	no	yes	no	no
11	yes	.....	12	59	....	....	45	yes	yes	yes	yes	yes	no	yes	yes	no	no
88	yes	.....	12	728	37	766	1894	yes	yes	no	yes	yes	no	yes	yes	yes	yes
3	yes	.....	12	70	....	....	43	yes	yes	yes	no	no	no	yes	yes	no	no
1	no	.....	9	....	....	....	27	no	no	no	no	no	no	no	yes	no	no
1	yes	.....	12	15	....	....	8	no	no	no	no	no	no	no	yes	no	no
1	yes	.....	12	19	....	....	35	yes	yes	no	yes	yes	no	no	yes	no	no
5	yes	1-4	13	97	....	....	47	yes	yes	yes	no	yes	no	yes	yes	no	no
9	yes	.....	12	212	19	26	137	yes	yes	yes	yes	yes	no	yes	yes	no	no
1	yes	1-2	12	42	....	....	16	no	no	no	no	no	no	yes	yes	no	no
4	yes	.....	12	58	....	....	87	yes	yes	yes	no	no	no	yes	yes	no	no
2	no	1-4	12	53	....	....	42	yes	yes	no	no	no	no	no	yes	no	no
39	yes	.....	13	531	16	74	600	yes	yes	no	yes	yes	no	yes	yes	yes	yes
2	no	1-4	12	50	....	21	33	yes	yes	yes	no	no	no	yes	yes	no	no
3	no	1-5	12	43	....	2	26	yes	no	yes	no	no	no	yes	yes	no	no
1	no	1-5	11	4	....	....	....	no	no	no	no	no	no	no	yes	no	no
4	yes	.....	13	74	....	....	25	yes	yes	yes	yes	yes	no	yes	yes	yes	no
.....	yes	.....	12	88	1	....	78	yes	yes	no	yes	yes	yes	no	yes	no	no
3	yes	all	13	....	....	....	....	yes	yes	no	yes	yes	no	no	yes	yes	no
.....	yes	.....	13	62	....	....	25	yes	yes	yes	yes	no	no	yes	yes	no	no
8	no	1-4	12	45	....	....	91	yes	yes	no	yes	yes	no	yes	yes	no	yes
8	yes	.....	13	78	....	....	165	yes	yes	yes	yes	yes	no	yes	yes	no	yes
9	yes	.....	12	75	....	30	60	yes	yes	yes	yes	yes	no	yes	yes	no	yes
.....	no	1-5	12	120	....	15	190	yes	yes	no	yes	yes	no	yes	yes	no	no
12	yes	.....	13	330	....	35	140	yes	yes	yes	yes	yes	no	yes	yes	yes	yes

TABLE XVIII.—*Continued.*

Incorporated cities.	Average number pupils to each teacher.				Number of non-resident pupils.				Rate of tuition per year.			Average age of class.			Number of graduates.
	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Graduated.	Promoted to high school.	Promoted to grammar department.	
Lansing	25	35	32	31	58	26	23	107	$19 00	$9 50	$9 50	17.6	14	.....	57
Lapeer	23	37	33	26	50	4	2	56	20 00	16 00	12 00	18	14	10.6	23
Ludington	25	28	38	31	24	1	....	25	15 00	10 00	.....	18.3	.....	.....	32
Mackinac Island	20	36	47	34	.....	.....	.....	.....	.....	.....	.....	18	11	9	4
Manistee	20	29	29	28	49	5	7	61	20 00	14 00	10 00	18.3	14.5	10.2	33
Manistique	19	31	33	30	21	2	1	24	15 00	15 00	15 00	18.3	14.5	10.2	22
Marine City	10	23	29	21	5	3	5	13	20 00	10 00	10 00	18	15	11	6
Marquette	24	32	34	30	.....	.....	.....	.....	.....	.....	.....	18	.....	.....	36
Marshall	22	31	27	23	58	5	2	65	20 00	16 00	10 00	18	13	10	39
Mason	24	28	34	26	33	13	5	51	16 00	12 00	12 00	18	14	10	14
McBain	10	30	36	28	1	2	....	3	9 00	9 00	9 00	18	13	.....	2
Menominee	52	36	48	35	7	....	....	7	19 00	15 00	10 00	19	15	11	43
Midland	27	33	33	31	45	3	....	48	15 00	10 00	7 50	17	13	9	25
Monroe	17	29	39	28	53	7	5	65	20 00	14 00	14 00	18	14	9	17
Mt. Clemens	18	36	29	28	32	28	....	60	12 00	10 00	10 00	18.1	14.3	11.4	18
Mt. Pleasant	19	24	32	25	58	6	....	64	13 00	10 00	10 00	18	14	9	39
Muskegon	28	32	33	32	39	5	4	48	36 00	20 00	16 00	18	.....	.....	73
Muskegon Heights	13	28	31	26	5	7	4	16	12 00	10 00	9 00	16	13	10	5
Negaunee	18	30	40	32	4	.....	.....	4	20 00	.....	.....	18	14	.....	27
Niles	23	44	34	34	33	12	4	49	15 20	11 40	7 60	18	.....	.....	23
‡North Muskegon	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norway	20	45	39	35	10	.....	.....	10	35 00	.....	.....	18	14.5	10.3	15
Omer	20	30	33	28	3	.....	.....	3	.....	.....	.....	15	11	7	2
Onaway	11	32	37	29	.....	.....	.....	.....	20 00	12 00	10 00	19	15	11	1
‡Owosso	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Petoskey	17	43	52	40	.....	.....	.....	.....	13 50	9 00	.....	19	14	.....	19
Pontiac	25	40	40	34	68	12	5	75	20 00	18 00	14 00	18	13	9	40
Port Huron	25	27	30	28	28	3	3	34	19 00	15 00	9 00	18	14	10	50
Rose City	20	38	75	49	6	.....	.....	6	10 00	10 00	10 00	16	13	10	11
Saginaw	16	30	32	27	100	10	5	115	36 00	20 00	16 00	17.9	.....	.....	102
Saginaw, W. S	24	32	38	31	14	3	6	20	25 00	12 00	9 00	18	.....	.....	33
St. Clair	18	37	36	28	10	1	4	15	15 00	10 00	7 50	17	14.5	9.5	12
St. Ignace	15	23	29	22	10	10	4	24	19 00	9 50	9 50	18	14	10	4
St. Johns	22	34	30	24	51	4	....	55	25 00	15 00	15 00	18.2	14.5	10.8	24
St. Joseph	18	29	30	26	22	6	....	28	28 80	18 00	18 00	18	14.8	11	17
St. Louis	18	33	33	28	33	8	4	45	12 50	10 00	10 00	18.6	15	.....	19
Sandusky	31	31	62	44	14	1	....	15	21 00	21 00	.....	17	13	.....	3
Sault Ste. Marie	22	34	40	35	40	.....	.....	40	.....	.....	.....	18.4	14.5	11	32
Scottville	30	32	31	31	....	3	1	4	15 00	15 00	15 00	18	14	10	10
South Haven	25	25	33	29	78	29	31	138	19 00	11 40	7 60	19.4	15	10.7	21
Standish	10	36	42	28	13	1	....	14	12 50	10 00	10 00	17.2	14.2	10.2	8
Stanton	20	36	38	35	17	....	....	17	14 25	9 50	9 50	17.2	15.2	10	7
Sturgis	26	31	36	31	16	4	12	32	16 00	13 00	10 00	18	14	10.5	18
Tawas City	12	29	33	24	10	....	....	10	10 00	.....	.....	16.6	14	10	6
Three Rivers	16	25	30	25	.....	.....	.....	.....	.....	.....	.....	18	.....	.....	27
Traverse City	27	38	36	32	76	22	....	98	30 00	15 00	.....	18.9	15	.....	54
‡West Branch	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whittemore	....	58	65	61	....	7	1	8	.....	10 00	10 00	.....	13	.....	.....
Wyandotte	13	25	24	22	17	12	6	35	20 00	15 00	15 00	18	14	10	14
Yale	31	31	30	30	41	3	4	48	14 25	9 50	9 50	18	14	10	19
Ypsilanti	27	33	27	29	41	3	....	44	16 00	10 00	10 00	19	14.2	10	49
Zeeland	16	33	41	33	17	1	....	18	16 00	12 00	10 00	17	13	10	11

‡No report received.

TABLE XVIII.—*Continued.*

Number of U. S. flags.	Has school a kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of grades in the school.	Number of pupils studying—				Does school give special instruction in—						Has school a commercial course?	Is the compulsory attendance law enforced?	Has school an ungraded department?	Has school a day school for the deaf?
				Latin.	Greek.	French.	German.	Vocal music?	Drawing?	Penmanship?	Manual training?	Domestic science?	Agriculture?				
13	yes	.....	12	249	3	....	248	yes	no	no	yes	yes	no	no	yes	no	no
3	no	1-3	12	43	....	....	34	yes	yes	yes	no	no	no	yes	yes	no	no
6	yes	1-2	13	123	....	....	45	yes	yes	no	yes	yes	no	yes	yes	no	no
1	no	.....	12	8	....	6	....	no	no	yes	no	no	no	no	no	no	no
6	yes	.....	12	82	....	20	33	yes	yes	yes	yes	yes	no	yes	yes	no	yes
3	yes	1-2	13	66	....	....	36	yes	yes	no	no	yes	no	yes	yes	yes	no
3	yes	1-3	12	25	....	....	12	yes	yes	no	no	no	no	yes	yes	no	no
11	yes	.....	12	101	....	52	117	yes	yes	no	yes	yes	no	yes	yes	no	yes
2	no	1-2	12	120	....	....	110	yes	yes	no	yes	no	no	yes	yes	no	no
2	yes	.....	12	40	....	....	41	yes	yes	no	no	no	no	no	yes	no	no
1	yes	1-2	12	20	....	....	....	yes	yes	yes	no	no	no	no	yes	no	no
9	yes	.....	12	64	....	....	60	yes	yes	yes	yes	yes	no	yes	yes	no	no
1	no	.....	12	43	....	....	51	no	no	no	yes	yes	no	yes	yes	no	no
4	yes	3-4	12	56	....	....	26	yes	yes	yes	yes	yes	no	yes	yes	no	no
6	yes	.....	13	35	....	....	29	yes	yes	no	no	no	no	yes	yes	no	no
2	no	1-4	12	45	....	....	33	yes	yes	yes	yes	yes	no	yes	yes	no	no
15	yes	.....	13	239	....	52	47	yes	yes	yes	yes	yes	no	yes	yes	no	no
1	yes	.....	10	8	....	....	....	yes	yes	no	no	no	no	no	yes	no	no
3	yes	.....	12	51	....	13	19	yes	yes	yes	yes	yes	no	yes	yes	no	no
5	no	.....	12	58	....	....	44	yes	yes	no	no	no	no	no	yes	no	no
3	no	1-3	12	60	....	....	25	yes	yes	no	no	no	no	yes	yes	no	no
1	no	.....	10	....	....	....	8	yes	no	no	no	no	no	no	yes	no	no
4	yes	1-2	13	14	....	....	10	no	no	no	yes	yes	no	no	yes	no	no
4	yes	.....	12	52	....	....	30	yes	yes	yes	no	no	no	yes	yes	yes	no
7	yes	all	12	100	....	12	50	yes	yes	no	yes	yes	no	no	yes	no	no
13	no	1-4	12	120	....	60	120	yes	yes	yes	yes	yes	no	yes	yes	no	no
1	no	1-3	10	....	....	....	....	no	no	no	no	no	no	no	no	no	no
15	no	.....	12	120	....	54	403	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
9	no	.....	12	85	....	99	740	yes	yes	no	yes	yes	no	yes	yes	no	no
2	yes	.....	13	30	....	....	25	yes	yes	no	yes	no	no	no	yes	no	no
3	yes	1-2	12	14	....	....	8	no	no	no	no	no	no	yes	no	no	no
3	yes	1-2	13	43	....	....	31	yes	yes	no	yes	no	no	yes	yes	no	no
3	yes	.....	12	40	....	....	65	yes	yes	no	yes	no	no	yes	yes	no	no
2	yes	.....	12	38	....	....	21	yes	yes	no	yes	no	yes	yes	yes	no	no
1	no	.....	12	....	....	....	....	no	no	no	no	no	no	no	yes	no	no
7	yes	1-2	13	150	....	45	40	yes	yes	yes	yes	yes	no	yes	yes	no	no
1	no	1-2	12	40	....	....	27	yes	yes	yes	no	no	no	yes	yes	no	no
4	no	1-2	12	88	....	....	69	yes	yes	no	no	no	no	yes	yes	no	no
1	.....	.....	12	20	....	....	8	no	no	no	no	no	no	.....	yes	no	no
1	yes	.....	12	16	....	....	13	yes	yes	no	no	no	no	no	no	no	no
2	yes	1-3	12	50	....	....	39	yes	yes	no	no	no	no	no	yes	no	no
....	no	1-5	12	16	....	....	12	no	no	no	no	no	no	no	no	no	no
3	yes	.....	12	62	....	12	32	yes	yes	yes	yes	yes	no	yes	yes	no	no
6	yes	.....	13	100	4	4	140	yes	yes	no	yes	yes	no	yes	yes	yes	yes
1	.....	1-5	10	....	....	....	....	no	no	yes	no	no	yes	no	yes	no	no
3	yes	.....	13	18	....	....	39	yes	yes	yes	yes	no	no	no	yes	no	no
1	yes	.....	13	54	....	....	23	no	no	no	no	no	no	no	no	no	no
4	no	6-7	12	87	....	8	88	yes	yes	no	yes	yes	no	no	yes	no	no
2	yes	.....	12	25	....	....	20	yes	yes	no	no	no	no	yes	yes	no	no

TABLE XVIII.—*Continued.*

Incorporated villages.	Average number pupils to each teacher.				Number of non-resident pupils.				Rate of tuition per year.			Average age of class.			Number of graduates.
	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Graduated.	Promoted to high school.	Promoted to grammar department.	
Addison	23	35	27	27	26	1	....	27	$40 00	$35 00	$30 00	18	13	9.6	9.
†Akron	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Alanson	5	79	39	33	2	2	....	4	11 25	....	....	18	15	....	4
Algonac	18	20	37	27	6	....	....	6	9 00	6 75	6 75	18	14	10	7
Almont	20	32	34	35	18	....	....	18	13 50	....	....	18	....	....	5
Applegate	....	30	26	28	....	....	....	2	....	....	....	....	15	12	3
Armada	26	31	30	29	18	3	2	23	....	....	....	17	12	9	10
Ashley	13	34	39	29	14	....	1	15	10 00	7 50	7 50	16	13	11	3
Athens	28	35	35	30	50	3	....	53	20 00	12 00	12 00	18	14	10	8
*Atlanta	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Attica	....	40	45	42	....	....	....	....	10 00	10 00	5 00	....	15	....	2
Augusta	12	25	58	30	23	....	....	23	9 00	9 00	9 00	16.5	14.7	11	5
Baldwin	16	21	60	26	....	....	....	....	....	....	....	17	13	10	4
Bancroft	13	48	27	25	15	12	7	34	10 00	10 00	10 00	18	14	10	6
Bangor	24	44	42	35	35	12	2	49	20 00	10 00	10 00	18	....	....	13
Baraga	15	67	50	44	....	....	....	....	....	....	....	....	....	....	4
†Baroda	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Barryton	42	37	55	44	9	2	1	12	10 00	10 00	10 00	17	13	10	9
Bear Lake	50	59	34	44	32	....	....	32	11 25	9 00	9 00	17	....	....	3
Bellaire	17	39	44	34	16	1	....	17	12 50	10 00	....	17	....	....	5
Belleville	30	35	35	35	14	10	10	34	15 00	10 00	5 00	17	14	10	5
Bellevue	15	30	42	27	20	3	....	23	12 50	12 50	12 50	17	13	10	13
Bengonia	22	34	43	34	6	1	....	7	12 60	12 60	9 00	17.5	14.5	10	4
Berrien Springs	18	28	25	23	20	1	1	22	12 00	12 00	10 00	17	14	10.5	6
†Birmingham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Blissfield No. 1 fr	....	32	31	31	....	....	....	....	....	....	10 00	....	15	....	6
Blissfield No. 2 fr	20	37	33	28	55	6	....	61	15 00	15 00	15 00	18	15	10	9
Bloomingdale	23	30	43	28	20	2	....	22	9 00	9 00	9 00	17	13	10	6
Boardman	36	28	44	36	5	....	....	5	9 00	9 00	9 00	18	....	....	1
Boyne Falls	12	38	34	24	2	....	....	2	10 00	....	....	16.5	....	....	3
Breckenridge	23	33	37	31	26	2	1	29	10 00	10 00	10 00	16	12	9	1
†Breedsville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Brighton	24	28	27	25	10	2	....	12	14 00	10 00	10 00	18	14	10.5	8
Britton	34	24	39	32	3	5	3	11	9 50	9 50	9 50	17	14	10	10
Bronson	23	27	24	24	53	3	....	56	15 20	....	....	17	13	9	9
Brooklyn	22	38	28	27	....	....	....	....	12 50	12 50	10 00	17	14	10	5
Buchanan	18	23	34	25	33	13	5	51	12 60	9 50	6 30	18	13	10	8
Buckley	....	....	....	30	....	....	....	20	9 00	....	....	....	....	....	....
Burlington	29	17	24	23	7	....	....	7	9 00	....	....	16	....	....	14
Burr Oak	25	46	28	29	32	1	....	33	....	....	....	....	....	....	14
Byron	51	26	27	30	20	3	4	27	15 00	12 50	10 75	16	13	11	16
Caledonia	39	26	21	28	20	2	....	22	10 00	10 00	....	17	14	10	6
Calumet	22	35	35	31	122	....	....	122	60 00	....	....	19	15	....	77
Camden	27	28	22	25	....	....	....	31	9 00	....	....	18	....	....	8
Capac	22	30	45	32	19	1	4	24	15 00	15 00	10 00	17.5	15	9.5	6
Caro	24	36	34	30	60	11	2	73	13 00	10 00	7 80	18	14	10	17
†Carson City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Carsonville	....	38	....	38	....	....	....	6	....	....	....	....	15	....	2
Caseville	4	36	36	28	5	1	....	6	10 00	10 00	10 00	....	13	....	....
Casnovia	18	25	45	26	19	....	....	19	12 50	10 00	10 00	....	....	....	....
Cass City	30	27	23	24	60	4	....	64	15 00	12 50	10 00	18	....	....	15
Cassopolis	16	32	40	29	23	7	1	31	13 30	11 40	9 50	17	14	10.2	6
Cedar Springs	22	34	41	33	33	2	2	37	14 25	11 40	6 33	18	15	10	11
Central Lake	21	35	35	30	13	1	....	14	15 00	10 00	10 00	18	14	10	5
Centreville	13	26	27	20	21	3	....	24	13 00	9 00	9 00	18	....	....	4

*Not legally graded.
†No report received.

TABLE XVIII.—*Continued.*

Number of U. S. flags.	Has school a kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of grades in the school.	Number of pupils studying—				Does school give special instruction in—						Has school a commercial course?	Is the compulsory attendance law enforced?	Has school an ungraded department?	Has school a day school for the deaf?
				Latin.	Greek.	French.	German.	Vocal music?	Drawing?	Penmanship?	Manual training?	Domestic science?	Agriculture?				
1	no	1-4	12	46	.....	.....	.....	no	no	yes	no	no	no	.....	.....	no	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-2	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	yes	no	no
1	yes	.....	12	10	.....	.....	.....	no	no	yes	no	no	no	yes	yes	no	no
1	no	.....	12	13	.....	.....	15	yes	yes	no	no	no	no	no	no	no	no
1	no	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	no	yes	no	no
1	no	.....	12	28	.....	.....	.....	no	no	no	no	no	no	no	yes	no	no
1	no	1-4	11	21	.....	.....	3	no	no	yes	no	no	no	no	yes	no	no
1	.....	.....	13	38	.....	.....	18	no	no	no	no	no	yes	yes	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	1-2	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	yes	no	.....
1	no	1-8	12	.....	.....	.....	19	no	no	no	no	no	no	no	yes	no	no
1	no	1-3	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	no	yes	no	.....
1	yes	1-3	12	3	.....	.....	.....	yes	yes	yes	no	no	yes	no	yes	no	no
1	yes	.....	12	15	.....	.....	18	yes	yes	.....	.....	.....	yes	yes	yes	no	no
1	yes	.....	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	yes	yes	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	yes	.....	10	.....	.....	.....	.....	.....	yes	yes	no	.....	yes	no	yes	no	no
1	yes	.....	12	.....	.....	.....	.....	.....	no	no	no	no	no	no	yes	no	no
1	yes	1-5	12	12	.....	.....	20	yes	yes	yes	no	no	no	no	yes	no	no
1	no	1-4	12	.....	.....	.....	.....	no	yes	no	no	no	no	yes	yes	no	no
1	no	1-2	12	32	.....	.....	18	yes	yes	no	no	no	no	yes	yes	no	no
1	yes	1-2	12	20	.....	.....	2	no	yes	no	.....	.....	.....	no	yes	no	no
1	yes	.....	12	16	.....	.....	18	yes	yes	yes	no	no	no	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	8	.....	.....	.....	.....	no	no	yes	no	no	yes	no	yes	no	no
1	no	1-7	12	55	.....	.....	9	yes	no	no	no	no	no	yes	no	no	no
1	no	.....	12	22	.....	.....	20	no	no	no	no	no	no	no	no	no	.....
1	no	1-2	12	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....
1	no	.....	10	.....	.....	.....	.....	yes	no	yes	no	no	no	no	yes	no	no
1	no	.....	12	8	.....	.....	6	.....	.....	.....	.....	.....	.....	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	12	3	.....	.....	15	.....	.....	.....	.....	.....	.....	.....	yes	no	no
1	no	1 6	10	22	.....	.....	.....	no	no	no	no	no	no	no	yes	no	no
1	yes	1 3	12	12	.....	.....	20	no	no	no	no	no	no	yes	yes	.....	.....
2	yes	.....	12	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....	.....
2	no	1-5	12	18	.....	.....	18	yes	.....	.....	yes	no	no	yes	yes	no	no
2	no	.....	12	5	.....	.....	.....	no	no	no	no	no	no	no	yes	yes	no
.....	no	1-4	10	.....	.....	.....	.....	no	no	yes	yes	no	yes	yes	yes	.....	.....
1	yes	.....	12	19	.....	.....	10	yes	yes	yes	no	no	no	.....	yes	no	no
1	yes	1-3	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	no	yes	.....	.....
.....	no	.....	11	12	.....	.....	.....	no	no	no	no	no	no	no	yes	no	no
21	yes	all	13	.....	.....	.....	.....	yes	yes	yes	yes	yes	no	yes	yes	yes	yes
1	no	.....	12	24	.....	.....	.....	no	no	no	no	no	no	yes	yes	no	no
1	no	.....	12	15	.....	.....	.....	no	no	yes	no	no	no	no	yes	no	no
2	yes	.....	12	40	.....	.....	30	yes	yes	yes	.....	.....	.....	yes	yes	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	8	.....	.....	.....	.....	no	no	yes	no	no	no	no	yes	no	no
1	no	1-2	12	3	.....	.....	.....	no	no	yes	no	no	no	no	yes	no	no
1	no	.....	12	10	.....	.....	.....	no	yes	yes	.....	.....	.....	yes	yes	no	.....
1	yes	1-4	12	35	.....	.....	15	yes	yes	yes	no	no	no	no	yes	no	.....
1	yes	1-3	12	23	.....	.....	11	yes	yes	no	no	no	no	yes	yes	no	.....
1	no	1-2	12	11	.....	.....	8	yes	yes	no	no	no	no	no	yes	no	no
1	yes	1-2	12	28	.....	.....	3	yes	yes	yes	yes	no	no	yes	yes	no	no
1	no	1-5	12	8	.....	.....	4	yes	yes	yes	.....	.....	yes	.....	yes	no	.....

TABLE XVIII.—*Continued.*

Incorporated villages.	Average number pupils to each teacher.				Number of non-resident pupils.				Rate of tuition per year.			Average age of class.			Number of graduates.
	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Graduated.	Promoted to high school.	Promoted to grammar department.	
Chelsea	22	24	24	23	53	6	3	62	$20 00	$15 00	$15 00	17	14	11	33
Chesaning	18	32	37	28	31	1	1	33	15 00	15 00	15 00	18.5	14	9.5	6
Clarkston	30	30	30	30	20	....	....	20	13 00	10 00	10 00	17	16	10	4
Clayton	35	26	25	28	16	2	1	19	9 00	.....	9 00	17	.....	.....	3
*Clifford	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Climax	15	30	27	23	10	....	....	10	12 60	10 80	10 80	18	.....	.....	6
Clinton	27	22	29	25	35	4	6	45	13 30	9 50	7 60	17.9	13.7	10.1	10
Clio	12	32	33	25	21	12	8	41	14 00	12 00	10 00	18	13	8	4
Coloma	25	32	40	31	27	....	....	27	13 50	.....	.....	18	.....	.....	9
Colon	30	18	26	24	23	1	....	24	12 00	10 60	.....	18	.....	.....	8
Columbiaville	15	32	41	25	21	1	....	22	10 00	7 50	7 50	18	.....	.....	5
Concord	19	25	53	27	27	3	2	32	4 00	3 50	2 50	18.3	13.7	10	3
Constantine	21	27	35	26	24	4	2	30	15 00	12 00	9 00	18	15	10	12
Coopersville	21	38	47	34	39	8	1	48	14 25	9 50	9 50	17	14	9	8
Copemish	37	45	61	47	....	....	....	....	4 50	.....	.....	17	11	8	6
*Craton	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Custer	28	30	22	26	....	....	....	....	.....	.....	.....	.....	.....	.....	1
*Daggett	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Dansville	26	16	24	20	10	6	....	16	10 00	8 00	8 00	17	13.1	10.1	3
Davison	32	28	23	27	30	1	3	34	15 00	12 00	12 00	17.5	15.6	9	10
Dearborn	19	35	35	31	15	3	....	18	20 00	7 50	7 50	18	14	10	2
Decatur	22	38	47	36	34	6	7	47	13 00	10 00	7 00	19	14	10	13
Deckerville	26	41	114	60	23	1	1	25	15 00	10 00	7 50	.....	.....	.....	2
Deerfield	19	45	44	34	9	3	6	18	9 00	4 50	4 00	18	13.6	10.6	5
†Delray	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Detour	26	34	43	38	....	....	....	....	.....	.....	.....	16	14	10	7
Dexter	22	34	32	31	37	1	2	40	20 00	.....	.....	18	.....	.....	19
†Dimondale	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Douglas	23	35	34	27	5	....	1	6	9 00	9 00	9 00	18	14	10	3
Dryden	41	41	41	41	....	....	....	14	15 00	12 60	10 00	16	13	10	7
Dundee	24	35	40	33	27	....	....	27	15 00	.....	.....	18	14	10.6	11
Durand	16	37	45	33	15	7	2	24	12 00	10 00	10 00	18	14	10	8
*Eagle	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
East Grand Rapids	....	29	25	26	....	....	....	....	.....	.....	.....	.....	.....	.....	....
East Jordan	20	24	35	26	21	4	....	25	9 50	7 12	4 75	18.4	14.3	10.5	17
†Eau Claire	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
†Ecorse	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Edmore	27	31	33	30	19	4	1	24	9 50	7 13	4 75	17	14	.....	6
Elk Rapids	21	31	24	24	14	2	2	18	20 00	20 00	20 00	19	13	9	21
Elkton	21	80	34	45	20	4	2	26	12 00	10 00	10 00	18	14	11	13
Elsie	26	28	39	28	31	3	3	37	12 50	10 00	7 50	18	.....	.....	16
*Emmet	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Empire	10	28	60	32	5	....	....	5	15 00	12 50	.....	.....	.....	.....	4
Essexville	....	21	35	28	....	....	....	....	.....	.....	.....	.....	14	.....	....
Evart	29	46	45	37	39	....	....	39	10 00	.....	.....	18	14	10	21
Fairgrove	20	28	37	25	10	8	1	19	10 00	10 00	10 00	16	13	7	4
Farmington	15	48	31	27	15	11	2	28	16 00	10 00	10 00	18	14	10	5
Farwell	10	32	38	27	6	2	....	8	9 00	6 30	6 30	16	.....	.....	1
Fennville	21	38	42	33	23	....	....	23	11 25	11 25	11 25	17	13.5	10	13
Fenton	28	31	32	30	71	10	4	85	20 00	16 00	12 00	18	14	10	35
Fife Lake	29	35	38	34	7	....	....	7	.....	.....	.....	16	.....	.....	6
†Flushing	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....
Ford	....	23	29	25	....	....	....	....	.....	.....	.....	15	.....	.....	6
Forestville	....	36	50	43	....	....	....	....	.....	.....	.....	.....	.....	.....	....
*Fowler	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	....

*Not legally graded.
†No report received.

TABLE XVIII.—*Continued.*

Number of U. S. flags.	Has school a kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of grades in the school.	Number of pupils studying—				Does school give special instruction in—						Has school a commercial course?	Is the compulsory attendance law enforced?	Has school an ungraded department?	Has school a day school for the deaf?
				Latin.	Greek.	French.	German.	Vocal music?	Drawing?	Penmanship?	Manual training?	Domestic science?	Agriculture?				
1	yes	1-4	12	32	....	....	51	yes	yes	no	no	no	no	no	yes	no	.....
1	yes	.....	13	29	....	....	27	no	no	no	no	no	no	.....	yes	no	.....
1	no	1-5	12	13	....	....	....	no	no	no	no	no	no	no	yes	no	no
1	.....	.....	10	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....
.....	.....	.....	.....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-3	12	9	....	....	....	.....	.....	.....	.....	.....	.....	yes	yes	no	no
1	yes	1-2	12	27	....	....	16	no	yes	yes	no	no	no	no	yes	no	no
1	yes	.....	12	14	....	....	13	yes	yes	no	no	no	no	no	yes	no	no
1	yes	1-3	12	17	....	....	14	no	.....	.....	.....	.....	.....	.....	yes	no	no
1	no	.....	12	22	....	....	18	yes	yes	yes	no	no	no	no	yes	no	.....
1	no	1-5	12	....	....	....	....	no	no	yes	no	no	no	no	yes	no	no
1	no	1-3	12	8	....	....	....	yes	yes	no	no	no	no	no	yes	no	.....
1	yes	1-3	12	33	....	....	25	yes	yes	.....	no	no	no	no	yes	no	no
1	yes	1-3	12	35	....	....	....	no	no	no	no	no	no	no	yes	no	no
1	yes	1-4	10	....	....	....	....	no	no	no	no	no	no	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-2	10	....	....	....	....	no	no	yes	no	no	no	no	yes	no	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	12	10	....	....	....	no	yes	yes	no	no	no	no	yes	no	no
1	no	1-4	12	26	....	....	3	no	no	no	no	no	no	no	yes	no	no
1	yes	1-3	12	14	....	....	....	yes	.....	.....	.....	.....	.....	yes	yes	no	no
1	no	1-3	12	25	....	....	30	no	no	no	no	no	no	no	yes	no	no
1	yes	.....	12	....	....	....	....	no	no	yes	no	no	no	no	no	no	.....
1	no	.....	12	....	....	....	....	no	no	no	no	no	yes	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	no	1-3	10	....	....	....	....	no	no	no	no	no	no	no	yes	no	no
.....	no	.....	12	54	....	....	17	.....	yes	.....	.....	.....	.....	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	12	14	....	....	....	no	no	no	no	no	no	yes	yes	no	no
.....	no	.....	10	....	....	....	....	no	no	no	no	no	no	no	yes	no	no
1	yes	.....	12	41	....	....	11	no	yes	no	no	no	no	no	yes	no	no
2	yes	1-5	12	37	....	....	6	yes	yes	no	no	no	no	yes	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-3	9	....	....	....	....	yes	yes	yes	no	no	no	no	yes	no	.....
3	yes	.....	13	39	....	....	25	yes	yes	yes	no	no	no	yes	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-2	12	30	....	....	....	no	no	no	no	no	no	no	yes	.....	.....
3	yes	.....	13	38	....	....	16	yes	yes	no	no	no	no	no	yes	no	no
.....	yes	1-4	12	17	....	....	....	.....	.....	.....	.....	.....	.....	yes	yes	.....	.....
1	no	1-3	12	....	....	....	13	no	no	no	no	no	no	yes	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-2	12	17	....	....	....	no	no	no	no	no	yes	no	yes	no	no
1	no	.....	8	....	....	....	....	yes	yes	.....	yes	no	no	no	yes	no	no
1	yes	.....	12	15	....	....	16	yes	no	yes	no	.....	.....	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	no	1-6	11	18	....	....	....	yes	yes	yes	no	no	no	yes	yes	no	no
1	no	1-4	12	14	....	....	....	.....	.....	.....	.....	.....	.....	yes	no	.....	.....
1	no	1-3	12	20	....	....	5	no	no	no	no	no	no	no	yes	no	no
1	no	1-3	12	19	....	....	12	no	no	yes	no	no	no	yes	yes	no	no
1	no	1-2	12	53	....	....	70	yes	yes	no	no	no	no	no	yes	no	no
1	no	.....	10	....	....	....	....	no	no	no	no	no	no	.....	.....	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	yes	1-3	8	....	....	....	....	yes	yes	yes	.....	.....	.....	no	yes	no	.....
1	no	.....	9	....	....	....	....	no	no	no	no	no	no	yes	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XVIII.—*Continued.*

Incorporated villages.	Average number pupils to each teacher.				Number of non-resident pupils.				Rate of tuition per year.			Average age of class.			Number of graduates.
	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Graduated.	Promoted to high school.	Promoted to grammar department.	
New Baltimore	10	23	43	23	13	2	....	15	$10 00	$8 00	.....	18	14	8.8	6
Newberry	15	27	24	23	10	5	....	15	12 50	7 50	.....	18	14	11	8
*New Boston															
New Buffalo	14	25	53	31	6	....	1	7	12 00	8 00	$8 00	18	15	10	6
New Haven	36	34	39	36	11	.....	.....	11	9 00	.....	.....	16	.....	.....	2
North Adams	21	15	30	21	51	1	1	53	14 25	14 25	14 25	18	13	9	21
North Branch	22	26	39	26	48	7	....	55	15 00	15 00	15 00	17	13	8	12
Northport	12	59	26	25	11	.....	.....	11	.....	15 00	.....	18	.....	.....	6
†Northville															
Oakley	....	30	38	34	....	2	1	3	3 00	3 00	3 00	15	.....	.....	5
Olivet	20	29	22	23	28	8	4	40	15 00	12 00	12 00	18	14	11	5
Onekama	31	27	32	30	4	.....	.....	4	9 00	9 00	9 00	16	12	.....	4
Ontonagon	17	34	21	22	.....	.....	.....	.....	.....	.....	.....	18	14	10	13
Orion	26	26	35	27	10	2	.....	12	10 00	8 00	8 00	19	14.1	10.2	2
Ortonville	36	42	50	42	19	2	4	25	10 00	10 00	7 50	17.6	14	10	4
Oscoda	25	37	46	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
Otisville	35	30	40	35	27	.....	.....	27	8 00	.....	.....	17.6	.....	.....	10
Otsego	20	40	36	32	36	7	....	43	19 00	15 20	15 20	17.9	14.3	10	26
Otter Lake	....	28	47	37	12	.....	.....	12	.....	.....	.....	.....	.....	.....	.....
Ovid	26	33	33	31	77	.....	.....	77	20 00	15 00	.....	17	13.5	10	14
*Owendale															
Oxford	13	30	47	34	20	10	3	33	12 00	10 00	10 00	17.6	14.4	10.5	11
Parma	42	25	30	30	20	4	3	27	12 00	.....	.....	17.6	14	11.6	6
Paw Paw	30	35	57	38	42	22	....	64	20 00	13 00	10 00	17	13	..	24
Peck	....	42	48	45	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....
Pelkton	16	38	21	28	12	.....	.....	.....	13 50	.....	.....	.....	.....	.....	5
Pentwater	19	51	22	31	7	6	....	13	9 00	6 00	6 00	18	15	11	6
*Perrinton															
Perry	12	33	39	29	11	4	3	18	10 00	10 00	10 00	17.3	13.5	....	6
Petersburg	24	35	34	34	18	5	4	27	18 00	13 50	9 00	18.2	14	10	11
Pewamo	17	26	21	21	15	.....	.....	15	9 00	.....	.....	18	.....	.....	2
Pierson	....	41	34	37	.....	2	1	3	.....	6 00	6 00	17	.....	.....	3
Pigeon	20	33	42	32	9	1	.....	10	15 00	10 00	.....	18	14	12	2
Pinckney	19	16	50	23	19	4	2	25	15 00	12 50	10 00	17	14	11	7
Pinconning	14	37	49	33	4	2	....	6	20 00	10 00	10 00	18	13	.....	4
Plainville	19	33	31	25	22	10	....	32	19 00	15 20	11 40	17	15	10	13
Plymouth	23	28	34	28	39	7	2	48	14 00	14 00	8 00	18.3	13.9	10 1	16
Port Austin	8	39	38	28	.....	.....	.....	.....	.....	.....	.....	17.5	15	10	7
Port Hope	13	26	32	23	.....	.....	.....	.....	10 00	5 00	3 50	14	12	10	2
Portland	18	25	35	22	37	20	4	59	15 50	15 50	5 40	18	14	10	21
Port Sanilac	17	29	40	28	5	.....	1	6	7 20	.....	.....	.....	14	.....	6
*Posen															
Potterville	17	40	36	32	18	.....	.....	18	10 00	.....	.....	16	.....	.....	5
Quincy	25	36	33	30	36	5	2	43	14 00	10 00	7 50	18	.....	.....	13
Reading	22	39	39	30	43	5	5	53	14 25	14 25	11 85	18.5	.....	...	20
*Redford															
‡Red Jacket															
Reed City	22	27	23	25	24	5	...	29	12 00	10 00	10 00	17.8	14.5	10.3	25
*Reese															
Richland	11	22	31	18	5	.....	.....	5	14 40	.....	.....	17	..	.....	2
Richmond	13	38	34	26	15	.....	.....	.....	15 00	12 50	10 00	18	13	9.6	12
River Rouge	8	28	34	29	2	.....	.....	2	20 00	15 00	15 00	16	13	11	6
Rochester	19	38	49	35	19	7	4	30	20 00	15 00	10 00	17	14	11	14
Rockford	17	44	43	35	20	8	.....	28	14 00	12 00	10 00	17	.....	.....	6
Rogers	26	48	46	42	4	.....	.....	4	18 00	13 50	.....	15	13	11	3

*Not legally graded. †No report received. ‡Report included in Calumet.

TABLE XVIII.—*Continued.*

Number of U. S. flags.	Has school a kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of grades in the school.	Number of pupils studying—				Does school give special instruction in—						Has school a commercial course?	Is the compulsory attendance law enforced?	Has school an ungraded department?	Has school a day school for the deaf?
				Latin.	Greek.	French.	German.	Vocal music?	Drawing?	Penmanship?	Manual training?	Domestic science?	Agriculture?				
				2			7								yes	no	no
5	yes		12	16			16	no						no	yes	no	no
1	no	1 2	12	13				yes	yes	yes	no	no	no	yes	yes	no	no
1	no		11					no	no	yes	no	no	no	yes	yes	no	no
	no		12					yes	yes	yes		yes	yes	no	yes	no	
1	no		12	27				no	no	no	no	no	no	no	yes	no	no
1	no		12												yes		
1	no		8											no	yes	no	no
	no	1-4	12	28			13	yes	yes	yes	no	no	no	no	yes	no	no
1	no		12	16				no	no	yes	no	no	no	no	yes	no	no
9	no	1-2	12	12			17	yes	yes	yes	no	no	no	yes	yes	no	no
1	no	1-4		15			4	yes	no	yes	no	no	no	no	yes	no	no
1	no		12					no	no	no	no	no	no	no	yes	no	no
1	yes	1-5	12	41				no	no	no	no	no	no	yes	yes	no	no
1	no		11					no	no	yes	no	no	no	no	no	no	no
1	yes		12	24			31	yes	yes	no	yes	no	yes	no	yes	no	no
1	no		10												yes	no	no
1	yes	1-3	12	24			30	yes	no	no	no	no	no	no	yes	no	
	no		12	23			16	yes	yes	yes				no	yes	no	no
1	no		12					yes	yes	yes	no	no	yes	yes	yes	no	no
1	yes	1-2	12	37			30	yes	yes	yes	yes	yes			yes	no	
	no		8							yes					yes		
2	no	1-2	12	40			8	no	no	no	no	no	no	no	yes	no	
1	yes	1-5	13	16			8	yes	yes	no	no	no	no	yes	yes	yes	no
1	no		12	10			7	no	no	no	no	no	no		yes	no	no
1	yes	1-5	13	7			15	no	no	yes	no	no	yes	no	yes	no	no
1	no		12	8						yes	no				yes		
	no		10					no	no	yes	no	no	no	no		no	
1	no	1-5	12				16			yes				yes			
1	no	1-6	12	7			18	no	no	no	no	no	no	yes	yes	no	no
1	yes	1 2	12				15	no	no	no	no	no	no	yes	yes	no	
2	yes	1 2	12	36			16	yes	yes	yes				no	yes	no	
1	yes		12	52			23	no	yes	no	yes	no	no	no	yes	no	no
1	yes	1 4	12	10			8	no	no	no	no				yes	no	no
1	yes		10												yes	no	no
1	no		12	30			28	yes	yes	no	no			no	yes	no	
1	no		10											no	yes	no	no
1	no		10					no	no	yes	no	no	no	no	yes	no	no
1	yes	1-2	12	12			9	no	yes	yes	no	no	no	yes	yes	no	no
	no	1-5	12	27			21	yes	no	no	no	no	no	no	yes	no	no
10	yes		13	56			25	yes	yes	yes	no	no	yes	no	yes	no	no
	no		12	8					no								no
2	no	1 2	12	11			22	yes	yes	no	no	no	no	yes	yes	no	no
3	yes	1-4	12	20			8	yes	yes	no	no	no	no	no	yes	yes	no
1	yes		12	24			16	no	no	no	no	no	no	no	yes	no	no
1	no		12	20				no	no	no	no	no	no	yes	yes	no	
2	no	1 2	10					no	no	yes	no	no	no	no	yes	no	no

TABLE XVIII.—*Concluded.*

Incorporated villages.	Average number pupils to each teacher.				Number of non-resident pupils.				Rate of tuition per year.			Average age of class.			Number of graduates.
	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Graduated.	Promoted to high school.	Promoted to grammar department.	
Romeo	20	30	33	27	45	5	3	53	$20 00	$13 00	$8 00	17.5	14.6	9.5	22
Roscommon	8	50	50	36	...	...	...	...	...	...	...	...	...	...	...
Royal Oak	13	59	48	40	5	2	2	9	20 00	16 00	10 00	18	12	9	6
St. Charles	11	28	41	29	13	...	...	13	10 00	10 00	10 00	...	...	...	5
*St. Clair Heights	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saline	18	19	20	19	26	9	1	36	16 00	13 00	10 00	18	14	10	11
†Sand Lake	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saranac	31	31	39	34	39	17	4	60	15 00	12 50	10 00	17	15	10.6	8
Saugatuck	29	11	40	26	...	...	...	...	12 00	...	...	17	...	...	11
Schoolcraft	18	31	21	26	18	2	2	22	18 00	14 40	14 40	18	14	...	5
Sebewaing	14	46	50	35	4	...	4	8	...	...	...	17	14	10	6
Shelby	28	25	36	26	42	3	3	48	12 00	12 00	12 00	18	13	10	21
Shepherd	28	33	36	33	27	...	...	27	15 00	10 00	10 00	17.6	11.9	8	8
Sheridan	25	45	60	38	6	4	2	12	9 00	6 75	4 50	17	14	10	4
Sherman	12	29	30	25	6	...	...	6	9 00	9 00	9 00	17	...	...	2
Sherwood	26	23	48	27	23	...	...	23	9 00	...	...	...	...	...	3
*Sibley	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Frankfort	10	94	35	42	...	...	...	...	10 00	7 50	5 00	17	13	7	1
South Lyon	20	35	40	31	12	2	...	14	12 50	12 50	8 50	17	...	...	7
Sparta	28	26	40	31	28	1	1	30	20 00	12 00	12 00	17.5	14	10.5	16
Spring Lake	8	25	36	26	1	2	...	3	9 50	7 15	4 75	16	14	...	3
Springport	20	33	22	25	...	...	...	...	15 00	...	...	18	13	8	10
Stambaugh	19	56	26	27	...	1	...	1	...	...	...	17	13	11	6
Stanwood	25	30	28	30	6	...	...	6	12 00	...	...	16	...	...	7
†Stephenson	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stevensville	16	21	30	22	8	1	6	15	12 50	7 50	7 50	18	11	...	4
Stockbridge	32	33	30	31	46	6	7	59	20 00	11 00	7 50	17	14	10	7
Sunfield	16	20	31	21	13	...	...	13	9 50	9 50	9 50	17.5	13.2	8.7	4
Sutton's Bay	13	24	31	22	1	...	...	1	8 00	...	...	...	...	...	...
Tecumseh	34	37	28	31	80	12	6	98	16 67	13 03	11 67	18	...	...	34
Tekonsha	23	80	23	42	27	8	2	37	12 00	10 50	6 00	18	14	9	6
Thompsonville	17	39	44	34	4	...	...	4	9 00	7 20	7 20	19	14	10	3
Three Oaks	23	31	36	30	16	3	...	19	13 50	11 25	9 00	17.5	14	9.5	7
Trenton	9	29	44	29	5	4	1	10	10 00	8 00	6 00	18	15	10	3
Tustin	35	12	45	39	24	...	...	24	9 00	...	...	18	...	...	4
Twining	24	49	34	30	...	...	...	...	7 50	5 00	3 50	16	...	...	10
Ubly	37	42	52	43	12	...	...	12	10 00	...	...	...	...	...	12
Union City	20	30	25	25	41	12	9	62	15 00	12 00	9 00	18	14	10	14
Unionville	48	48	96	64	23	...	...	23	10 00	10 00	10 00	18	11	8	5
Utica	42	57	80	55	18	2	...	20	13 00	...	...	19	14	11	4
Vandalia	24	38	37	30	17	...	...	17	9 00	9 00	6 00	19	...	...	4
Vanderbilt	9	41	40	32	...	...	...	...	5 00	...	...	...	...	...	15
Vassar	21	30	22	16	19	1	...	20	12 00	10 00	10 00	18	...	...	12
Vermontville	18	20	25	21	38	...	2	40	13 30	9 50	9 50	18	13	9	6
Vernon	14	21	29	21	8	9	...	17	10 00	7 50	...	17	...	...	3
Vicksburg	17	25	31	24	38	2	...	40	8 00	7 00	7 00	18	14	10	12
Wakefield	7	49	32	30	...	...	...	...	...	...	...	...	14	10	...
Waldron	21	32	42	29	27	...	...	27	11 25	11 25	11 25	15	11	7	6
Warren	...	18	37	22	...	...	...	...	9 00	9 00	...	...	15	10	1
Watervliet	21	32	40	30	24	5	6	35	11 25	9 00	6 75	18	13	9	11
Wayland	36	39	44	39	44	4	3	51	12 00	12 00	9 00	17	...	...	13
Wayne	41	35	45	37	48	9	10	67	14 00	10 00	8 00	...	13.5	10.3	10
Webberville	40	33	32	35	9	...	...	9	9 00	...	...	16	...	10	9
*Westphalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
White Cloud	11	43	37	30	6	1	...	7	13 50	9 00	9 00	17	...	...	2
Whitehall	21	24	44	29	10	3	...	13	15 00	10 00	...	18	14	10	9
White Pigeon	16	27	33	25	24	6	5	35	15 00	12 00	9 00	17.5	...	...	10
Williamston	20	41	36	30	35	7	...	42	14 00	10 00	8 00	18	14	11	12
Wolverine	17	31	33	28	9	3	2	14	19 00	14 25	14 25	17.6	14	11	6
Woodland	28	23	35	28	22	3	...	25	...	...	...	...	15	...	13

*Not legally graded. †No report received.

TABLE XVIII.—*Concluded.*

Number of U. S. flags.	Has school a kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of grades in the school.	Number of pupils studying—				Does school give special instruction in—						Has school a commercial course?	Is the compulsory attendance law enforced?	Has school an ungraded department?	Has school a day school for the deaf?
				Latin.	Greek.	French.	German.	Vocal music?	Drawing?	Penmanship?	Manual training?	Domestic science?	Agriculture?				
3	yes	.....	12	18	....	....	41	yes	yes	no	no	no	no	yes	yes	no	no
....	yes	.....	12	6	....	....	....	no	no	yes	no	no	no	.....	yes	.....	no
1	no	.....	12	17	....	....	17	yes	yes	no	no	no	no	no	yes	no	no
3	yes	.....	12	6	....	....	4	no	no	no	no	no	no	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	12	15	....	....	15	yes	yes	.....	.....	.....	.....	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	1-3	12	21	....	....	....	no	no	no	no	no	no	no	yes	no	no
2	no	.....	11	5	....	....	17	no	no	yes	no	no	no	no	yes	no	no
1	no	1-2	12	26	....	....	19	yes	yes	.....	.....	.....	.....	no	.....	no	.....
1	no	.....	12	5	....	....	....	no	yes	no	no	no	no	yes	yes	no	no
1	yes	1-6	13	51	....	....	10	yes	yes	yes	no	no	yes	no	yes	.....	.....
1	yes	1-2	12	13	....	....	....	yes	yes	yes	no	no	yes	yes	yes	no	no
1	no	1-4	12	....	....	....	....	no	no	yes	no	no	yes	yes	yes	no	no
1	.....	.....	11	6	....	....	....	no	no	yes	no	no	no	no	yes	no	no
1	yes	1-5	12	....	....	....	....	no	yes	yes	no	no	no	no	yes	.....	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-2	11	4	....	....	....	.....	yes	yes	.....	.....	.....	yes	yes	no	no
1	no	1-6	12	20	....	....	....	no	no	no	no	no	yes	yes	yes	no	.....
1	yes	1-6	12	18	....	....	....	yes	yes	.....	yes	.....	.....	no	yes	no	.....
1	no	all	10	7	....	....	....	.....	yes	yes	.....	.....	.....	.....	yes	no	no
1	no	1-6	12	9	....	....	....	yes	yes	.....	.....	.....	.....	no	yes	.....	.....
2	yes	.....	12	5	....	....	....	yes	yes	yes	no	no	yes	no	yes	.....	no
1	no	.....	10	....	....	....	....	no	no	yes	no	no	no	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-4	12	17	....	....	3	no	no	no	no	no	no	.....	yes	no	no
2	yes	1-4	12	22	....	....	12	no	no	no	no	no	no	yes	yes	no	no
1	yes	1-8	12	7	....	....	12	no	no	no	no	no	no	no	yes	no	.....
1	.....	1-4	11	....	....	....	....	no	no	no	no	no	yes	yes	yes	no	no
4	no	1-4	12	32	....	....	25	yes	yes	no	no	no	no	no	yes	no	no
1	no	.....	12	27	....	....	....	yes	yes	no	no	no	no	yes	yes	no	no
1	no	1-2	12	17	....	....	3	yes	yes	yes	.....	.....	.....	yes	yes	no	.....
2	no	1-4	12	13	....	....	18	no	no	no	no	no	no	no	yes	no	no
1	yes	.....	12	8	....	....	6	yes	yes	no	no	no	no	yes	yes	no	.....
1	yes	.....	11	....	....	....	....	.....	.....	yes	.....	.....	.....	yes	yes	no	no
1	.....	.....	10	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	1-4	10	....	....	....	....	no	yes	yes	no	no	no	no	yes	no	no
1	yes	.....	12	34	....	....	26	yes	.....	.....	.....	.....	yes	no	yes	no	no
.....	.....	.....	12	35	....	....	....	.....	.....	yes	.....	.....	.....	.....	yes	.....	.....
1	no	1-6	12	10	....	....	....	no	no	yes	no	no	no	no	yes	no	no
1	no	.....	12	9	....	....	....	no	no	yes	no	no	no	no	yes	no	no
1	no	.....	10	....	....	....	....	no	no	yes	no	no	no	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	no	1-2	12	....	....	....	....	yes	yes	no	yes	no	no	yes	yes	no	no
1	no	.....	12	40	....	....	19	no	no	yes	no	no	yes	yes	yes	no	no
1	yes	1-4	12	8	....	....	7	yes	no	no	no	no	no	yes	yes	no	no
1	yes	1-8	12	30	....	....	14	yes	yes	yes	yes	.....	.....	yes	yes	no	no
1	yes	.....	10	16	....	....	....	yes	.....	.....	.....	.....	.....	no	yes	no	.....
1	no	1-2	12	14	....	....	....	no	no	no	no	no	no	yes	yes	no	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	10	....	....	....	....	.....	.....	.....	.....	.....	.....	yes	yes	no	no
1	yes	1-2	12	32	....	....	12	no	no	no	no	no	no	yes	yes	no	no
1	no	1-3	12	29	....	....	....	no	no	yes	no	no	no	yes	yes	no	no
1	no	.....	12	32	....	....	30	yes	no	no	no	no	no	no	yes	no	no
1	no	1-2	10	....	....	....	....	no	no	yes	no	no	no	no	yes	no	no
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	yes	1-3	.....	.....	.....	.....	.....	yes	.....	.....	.....	.....	yes	.....	yes	.....	no
1	no	1-4	12	24	....	....	24	yes	no	no	no	no	no	yes	yes	no	no
1	yes	1-2	12	42	....	....	12	no	no	no	no	no	no	no	yes	.....	.....
1	.....	1-5	12	30	....	....	23	yes	yes	yes	.....	.....	.....	yes	yes	no	.....
1	no	.....	12	8	....	....	15	no	yes	no	no	no	no	no	no	no	no
1	no	.....	10	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....

TABLE XVIII.—*Concluded.*

Incorporated villages.	Average number pupils to each teacher.				Number of non-resident pupils.				Rate of tuition per year.			Average age of class.			Number of graduates.
	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Whole school.	High school department.	Grammar department.	Primary department.	Graduated.	Promoted to high school.	Promoted to grammar department.	
Romeo	20	30	33	27	45	5	3	53	$20 00	$13 00	$8 00	17.5	14.6	9.5	22
Roscommon	8	50	50	36	...	...	...	...	...	...	...	...	...	...	...
Royal Oak	13	59	48	40	5	2	2	9	20 00	16 00	10 00	18	12	9	6
St. Charles	11	28	41	29	13	...	...	13	10 00	10 00	10 00	...	...	...	5
*St. Clair Heights	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saline	18	19	20	19	26	9	1	36	16 00	13 00	10 00	18	14	10	11
†Sand Lake	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saranac	31	31	39	34	39	17	4	60	15 00	12 50	10 00	17	15	10.6	8
Saugatuck	29	11	40	26	...	...	...	...	12 00	...	...	17	...	...	11
Schoolcraft	18	31	21	26	18	2	2	22	18 00	14 40	14 40	18	14	...	5
Sebewaing	14	46	50	35	4	...	4	8	...	...	...	17	14	10	6
Shelby	28	25	36	26	42	3	3	48	12 00	12 00	12 00	18	13	10	21
Shepherd	28	33	36	33	27	...	...	27	15 00	10 00	10 00	17.6	11.9	8	8
Sheridan	25	45	60	38	6	4	2	12	9 00	6 75	4 50	17	14	10	4
Sherman	12	29	30	25	6	...	...	6	9 00	9 00	9 00	17	...	...	2
Sherwood	26	23	48	27	23	...	...	23	9 00	...	...	...	...	...	3
*Sibley	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
South Frankfort	10	94	35	42	...	...	...	...	10 00	7 50	5 00	17	13	7	1
South Lyon	20	35	40	31	12	2	...	14	12 50	12 50	8 50	17	...	...	7
Sparta	28	26	40	31	28	1	1	30	20 00	12 00	12 00	17.5	14	10.5	16
Spring Lake	8	25	36	26	1	2	...	3	9 50	7 15	4 75	16	14	...	3
Springport	20	33	22	25	...	...	...	...	15 00	...	...	18	13	8	10
Stambaugh	19	56	26	27	...	1	...	1	...	...	...	17	13	11	6
Stanwood	25	30	28	30	6	...	...	6	12 00	...	...	16	...	...	7
†Stephenson	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stevensville	16	21	30	22	8	1	6	15	12 50	7 50	7 50	18	11	...	4
Stockbridge	22	33	30	31	46	6	7	59	20 00	11 00	7 50	17	14	10	7
Sunfield	16	20	31	21	13	...	...	13	9 50	9 50	9 50	17.5	13.2	8.7	4
Sutton's Bay	13	24	31	22	1	...	...	1	8 00	...	...	...	...	...	...
Tecumseh	34	37	28	31	80	12	6	98	16 67	13 03	11 67	18	...	...	34
Tekonsha	23	80	23	42	27	8	2	37	12 00	10 50	6 00	18	14	9	6
Thompsonville	17	39	44	34	4	...	...	4	9 00	7 20	7 20	19	14	10	3
Three Oaks	23	31	36	30	16	3	...	19	13 50	11 25	9 00	17.5	14	9.5	7
Trenton	9	29	44	29	5	4	1	10	10 00	8 00	6 00	18	15	10	3
Tustin	35	12	45	39	24	...	...	24	9 00	...	...	18	...	...	4
Twining	24	49	34	30	...	...	...	...	7 50	5 00	3 50	16	...	...	10
Ubly	37	42	52	43	12	...	...	12	10 00	...	...	...	...	...	12
Union City	20	30	25	25	41	12	9	62	15 00	12 00	9 00	18	14	10	14
Unionville	48	48	96	64	23	...	...	23	10 00	10 00	10 00	18	11	8	5
Utica	42	57	80	55	18	2	...	20	13 00	...	...	19	14	11	4
Vandalia	24	38	37	30	17	...	...	17	9 00	9 00	6 00	19	...	...	4
Vanderbilt	9	41	40	32	...	...	...	...	5 00	...	...	...	...	...	15
Vassar	21	30	22	16	19	1	...	20	12 00	10 00	10 00	18	...	...	12
Vermontville	18	20	25	21	38	...	2	40	13 30	9 50	9 50	18	13	9	6
Vernon	14	21	29	21	8	9	...	17	10 00	7 50	...	17	...	...	3
Vicksburg	17	25	31	24	38	2	...	40	8 00	7 00	7 00	18	14	10	12
Wakefield	7	49	32	30	...	...	...	...	...	...	...	...	14	10	...
Waldron	21	32	42	29	27	...	...	27	11 25	11 25	11 25	15	11	7	6
Warren	...	18	37	22	...	...	...	...	9 00	9 00	...	...	15	10	1
Watervliet	21	32	40	30	24	5	6	35	11 25	9 00	6 75	18	13	9	11
Wayland	36	39	44	39	44	4	3	51	12 00	12 00	9 00	17	...	...	13
Wayne	41	35	45	37	48	9	10	67	14 00	10 00	8 00	...	13.5	10.3	10
Webberville	40	33	32	35	9	...	...	9	9 00	...	...	16	...	10	9
*Westphalia	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
White Cloud	11	43	37	30	6	1	...	7	13 50	9 00	9 00	17	...	...	2
Whitehall	21	24	44	29	10	3	...	13	15 00	10 00	...	18	14	10	9
White Pigeon	16	27	33	25	24	6	5	35	15 00	12 00	9 00	17.5	...	...	10
Williamston	20	41	36	30	35	7	...	42	14 00	10 00	8 00	18	14	11	12
Wolverine	17	31	33	28	9	3	2	14	19 00	14 25	14 25	17.6	14	11	6
Woodland	28	23	35	28	22	3	...	25	...	...	...	...	15	...	13

*Not legally graded. †No report received.

TABLE XVIII.—*Concluded.*

Number of U. S. flags.	Has school a kindergarten below primary grade?	Portion of time in first primary devoted to kindergarten work.	Number of grades in the school.	Number of pupils studying—				Does school give special instruction in—						Has school a commercial course?	Is the compulsory attendance law enforced?	Has school an ungraded department?	Has school a day school for the deaf?
				Latin.	Greek.	French.	German.	Vocal music?	Drawing?	Penmanship?	Manual training?	Domestic science?	Agriculture?				
3	yes	.....	12	18	....	....	41	yes	yes	no	no	no	no	yes	yes	no	no
.....	yes	.....	12	6	....	....	...	no	no	yes	no	no	no	.....	yes	.....	no
1	no	.....	12	17	....	....	17	yes	yes	no	no	no	no	no	yes	no	no
3	yes	.....	12	6	....	....	4	no	no	no	no	no	no	no	yes	no	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	12	15	....	....	15	yes	yes	.....	.....	.....	.....	no	yes	no	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	1-3	12	21	....	....	...	no	no	no	no	no	no	no	yes	no	no
2	no	.....	11	5	....	....	17	no	no	yes	no	no	no	no	yes	no	no
1	no	1-2	12	26	....	....	19	yes	yes	.....	.....	.....	.....	no	.....	no	.....
1	no	.....	12	5	....	....	...	no	yes	no	no	no	no	yes	yes	no	no
1	yes	1-6	13	51	....	....	10	yes	yes	yes	no	no	yes	no	yes	.....	.....
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-2	12	13	....	....	....	yes	yes	yes	no	no	yes	yes	yes	no	no
1	no	1-4	12	....	....	....	....	no	no	yes	no	no	yes	yes	yes	no	no
1	.....	.....	11	6	....	....	....	no	no	yes	no	no	no	no	yes	no	no
1	yes	1-5	12	....	....	....	....	no	yes	yes	no	no	no	no	yes	.....	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-2	11	4	....	....	....	.....	yes	yes	.....	.....	.....	yes	yes	no	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	1-6	12	20	....	....	....	no	no	no	no	no	yes	yes	yes	no	.....
1	yes	1-6	12	18	....	....	....	yes	yes	.....	yes	.....	.....	no	yes	no	.....
1	no	all	10	7	....	....	....	.....	yes	yes	.....	.....	.....	.....	yes	no	no
1	no	1-6	12	9	....	....	....	yes	yes	.....	.....	.....	.....	no	yes	.....	.....
2	yes	.....	12	5	....	....	....	yes	yes	yes	no	no	yes	no	yes	.....	no
1	no	.....	10	....	....	....	....	no	no	yes	no	no	no	no	yes	no	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	yes	1-4	12	17	....	....	3	no	no	no	no	no	no	.....	yes	no	no
2	yes	1-4	12	22	....	....	12	no	no	no	no	no	no	yes	yes	no	no
1	yes	1-8	12	7	....	....	12	no	no	no	no	no	no	no	yes	no	.....
1	.....	1-4	11	...	....	....	...	no	no	no	no	no	yes	yes	yes	no	no
4	no	1-4	12	32	....	....	25	yes	yes	no	no	no	no	no	yes	no	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	12	27	....	....	...	yes	yes	no	no	no	no	yes	yes	no	no
1	no	1-2	12	17	....	....	3	yes	yes	yes	.....	.....	.....	yes	yes	no	.....
2	no	1-4	12	13	....	....	18	no	no	no	no	no	no	no	yes	no	no
1	yes	.....	12	8	....	....	6	yes	yes	no	no	no	no	yes	yes	no	.....
1	yes	.....	11	...	....	....	...	.....	.....	yes	.....	.....	.....	yes	yes	no	no
1	.....	.....	10	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	1-4	10	...	....	....	...	no	yes	yes	no	no	no	no	yes	no	no
1	yes	.....	12	34	....	....	26	yes	.....	.....	.....	.....	yes	no	yes	no	no
.....	.....	.....	12	35	....	....	...	.....	.....	yes	.....	.....	.....	.....	yes	.....	.....
1	no	1-6	12	10	....	....	....	no	no	yes	no	no	no	no	yes	no	no
1	no	.....	12	9	....	....	....	no	no	yes	no	no	no	no	yes	no	no
1	no	.....	10	....	....	....	....	no	no	yes	no	no	no	no	yes	no	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	no	1-2	12	...	....	....	...	yes	yes	no	yes	no	no	yes	yes	no	no
1	no	.....	12	40	....	....	19	no	no	yes	no	no	yes	yes	yes	no	no
1	yes	1-4	12	8	....	....	7	yes	no	no	no	no	no	yes	yes	no	no
1	yes	1-8	12	30	....	....	14	yes	yes	yes	yes	.....	.....	yes	yes	no	no
1	yes	.....	10	16	....	....	...	yes	.....	.....	.....	.....	.....	no	yes	no	.....
1	no	1-2	12	14	....	....	....	no	no	no	no	no	no	yes	yes	no	.....
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	no	.....	10	...	....	....	...	.....	.....	.....	.....	.....	.....	yes	yes	no	no
1	yes	1-2	12	32	....	....	12	no	no	no	no	no	no	yes	yes	no	no
1	no	1-3	12	29	....	....	...	no	no	yes	no	no	no	yes	yes	no	no
1	no	.....	12	32	....	....	30	yes	no	no	no	no	no	no	yes	no	no
1	no	1-2	10	....	....	....	....	no	no	yes	no	no	no	no	yes	no	no
.....	.....	.....	.....	...	....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
2	yes	1-3	.....	...	....	....	...	yes	.....	.....	.....	.....	yes	.....	yes	.....	no
1	no	1-4	12	24	....	....	24	yes	no	no	no	no	no	yes	yes	no	no
1	yes	1-2	12	42	....	....	12	no	no	no	no	no	no	no	yes	.....	.....
1	.....	1-5	12	30	....	....	23	yes	yes	yes	.....	.....	.....	yes	yes	no	.....
1	no	.....	12	8	....	....	15	no	yes	no	no	no	no	no	no	no	no
1	no	.....	10	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	yes	.....	.....

TABLE XIX. - *Financial statistics of city schools as reported by superintendents for the year 1909-1910.*

Incorporated cities.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Adrian	$3,300 00	$27,315 44	$3,797 88	$34,413 32	$32 25	$9 86	$42 11	$16 72	$9 86	$26 58	$19 34	$9 86	$29 20	$21 79	$9 86	$31 65
Albion	1,700 00	13,361 50	2,382 00	17,443 50	24 63	8 23	32 86	9 66	8 23	17 89	25 79	8 23	34 02	17 35	8 23	25 58
Allegan	1,700 00	10,713 50	522 50	12,936 00	33 12	8 01	41 13	24 72	8 01	32 73	7 37	8 01	15 38	19 09	8 01	27 10
Alma	1,600 00	9,454 59	1,600 00	12,654 59	30 93	7 09	38 02	21 92	7 09	29 01	15 71	7 09	22 80	22 84	7 09	29 93
Alpena	1,750 00	28,194 95	2,350 00	32,294 95	44 08	9 10	53 18	10 10	9 10	19 20	12 65	9 10	21 75	18 22	9 10	27 32
Ann Arbor	2,600 00	55,009 50	8,320 00	65,929 50	49 36	13 24	62 60	20 89	13 24	34 13	.....	.....	.....	28 64	13 24	41 88
*Au Gres																
Au Sable	900 00	4,201 69		5,101 69	29 89	3 20	33 09	12 71	3 20	15 91	14 64	3 20	17 84	16 04	3 20	19 24
Bad Axe		775 00		775 00				16 89	2 76	19 65	3 33	2 76	6 09	9 45	2 76	12 21
Battle Creek	2,700 00	71,698 84	6,041 20	80,440 04	35 31	7 65	42 96	22 23	7 65	29 88	17 41	7 65	25 06	21 60	7 65	29 25
Bay City	3,000 00	122,635 35	5,200 00	130,835 35	46 68	11 70	58 38	25 87	11 70	37 57	17 94	11 70	29 64	24 00	11 70	35 70
Beaverton	675 00	1,710 00		2,385 00	34 83	10 09	44 92	10 28	10 09	20 37	10 50	10 09	20 59	15 28	10 09	25 73
Belding	1,200 00	10,196 52	950 00	12,346 52	32 43	13 34	45 77	15 50	13 34	28 84	14 74	13 34	28 08	17 82	13 34	31 16
Benton Harbor	2,000 00	23,642 50	2,850 00	28,492 50	36 82	8 96	45 78	21 37	8 96	30 33	15 11	8 96	24 07	20 90	8 96	29 86
Bessemer	3,837 50	17,397 75	1,500 00	22,735 25	50 65	13 41	64 06	22 56	13 41	35 97	15 95	13 41	29 36	22 05	13 41	35 46
Big Rapids	1,500 00	13,686 78	550 00	15,736 78	35 71	11 75	47 46	21 41	11 75	33 16	14 66	11 75	26 41	20 62	11 75	32 37
Boyne City	2,300 00	14,718 66		16,918 66	39 57	3 64	43 21	14 70	3 64	18 34	12 75	3 64	16 39	15 65	3 64	19 29
Brown City	800 00	2,750 00		3,550 00	22 52	6 24	28 76	12 82	6 24	19 06	10 33	6 24	16 57	14 31	6 24	20 55
Cadillac	1,750 00	27,159 27		28,909 27	31 91	5 01	36 92	7 66	5 01	12 67	14 67	5 01	19 68	14 50	5 01	19 51
Charlevoix	1,000 00	9,250 29	540 00	10,790 29	31 66	12 13	43 79	20 55	12 13	32 68	21 46	12 13	33 59	23 54	12 13	35 67
Charlotte	1,800 00	13,637 00	1,150 00	16,587 00	28 80	6 04	34 84	17 82	6 04	23 86	15 99	6 04	22 03	19 77	6 04	25 81
Cheboygan	1,800 00	18,175 00	2,200 00	22,175 00	44 64	9 54	54 18	18 51	9 54	28 05	14 58	9 54	24 12	19 50	9 54	29 04
Clare	1,000 00	3,450 00	545 88	4,995 88	28 67	4 17	32 84	14 80	4 17	18 97	13 07	4 17	17 24	14 03	4 17	18 20
Coldwater	3,000 00	17,560 43	1,950 00	22,510 43	27 63	11 80	39 43	23 37	11 80	35 17	20 66	11 80	32 46	23 15	11 80	34 95
Coleman	900 00	3,375 00		4,275 00	30 55	3 52	34 07	15 78	3 52	19 30	7 40	3 52	10 92	14 20	3 52	17 72
Corunna	1,300 00	5,525 00	340 00	7,165 00	48 06	6 08	54 14	17 04	6 08	23 12	16 68	6 08	22 76	22 53	6 08	28 61
Croswell	1,000 00	4,000 00		5,000 00	28 08	9 67	37 75	10 67	9 67	20 34	11 73	9 67	21 40	15 01	9 67	24 68
Crystal Falls	1,900 00	18,873 15	4,650 00	25,423 15	67 70	20 50	88 20	21 48	20 50	41 98	18 01	20 50	38 51	23 58	20 50	44 08
Detroit	6,000 00	1,292,120 60	41,902 54	1,340,023 14	60 16	8 71	68 87	32 46	8 71	41 17	22 63	8 71	31 34	29 47	8 71	38 18
Dowagiac	1,600 00	13,837 00	1,700 00	17,137 00	39 55	8 45	48 00	10 11	8 45	18 56	16 65	8 45	25 10	17 88	8 45	26 33

East Lansing	720 00	1,485 00		2,205 00	30 37	12 42	42 79	12 85	12 42	25 27	10 80	12 42	23 22	17 64	12 42	30 06
East Tawas	975 00	4,450 00		5,425 00	26 85	8 79	35 64	14 11	8 79	22 90	12 50	8 79	21 29	15 23	8 79	24 02
Eaton Rapids	1,100 00	5,900 00	1,675 00	8,675 00	27 23	5 45	32 68	21 61	5 45	27 06	22 00	5 45	27 45	23 44	5 45	28 89
Escanaba	2,700 00	37,295 92	1,042 25	41,038 17	31 99	7 61	39 60	17 12	7 61	24 73	16 26	7 61	23 87	19 32	7 61	26 93
Flint	2,250 00	62,353 53		64,603 53	32 84	6 38	39 22	12 68	6 38	19 06	13 86	6 38	20 24	15 14	6 38	21 52
Gladstone	1,500 00	12,825 00		14,325 00	35 34	6 88	42 22	13 61	6 88	20 49	11 66	6 88	18 54	15 22	6 88	22 10
†Gladwin																
Grand Haven	1,600 00	16,047 50	900 00	18,547 50	32 27	9 03	41 30	16 04	9 03	25 07	13 94	9 03	22 97	17 53	9 03	26 56
Grand Ledge	1,300 00	7,250 00	475 00	9,025 00	29 79	7 16	36 95	18 75	7 16	25 91	11 80	7 16	18 96	17 09	7 16	24 85
Grand Rapids	48,535 00	323,816 29	26,121 33	398,472 62	55 59	11 31	66 90	31 22	11 31	42 53	23 39	11 31	34 70	29 34	11 31	40 65
Greenville	1,400 00	9,881 00	800 00	12,081 00	27 53	7 96	35 49	21 22	7 96	29 18	12 56	7 96	20 52	18 47	7 96	26 43
Hancock	2,000 00	21,403 75	675 00	24,078 75	41 31	8 68	49 99	18 87	8 68	27 55	12 67	8 68	21 35	18 45	8 68	27 13
Harbor Beach	1,100 00	4,525 00	500 00	6,125 00	27 44	10 05	37 49	20 70	10 05	30 75	12 98	10 05	23 03	18 14	10 05	28 19
Harrison	675 00	1,282 50		1,957 50	20 45	2 13	22 58	9 71	2 13	11 84	12 21	2 13	14 34	13 31	2 13	15 44
†Harrisville																
Hastings	1,500 00	14,303 30	1,750 00	17,613 30	36 58	6 18	42 76	15 54	6 18	21 72	18 55	6 18	24 73	27 81	6 18	33 99
Hillsdale	1,500 00	14,540 24	2,710 00	18,750 24	28 55	8 17	36 72	16 70	8 17	24 87	13 08	8 17	21 25	18 12	8 17	26 29
Holland	1,900 00	25,989 17	1,850 00	29,739 17	39 50	22 05	61 55	15 29	22 05	37 34	12 44	22 05	34 49	15 65	22 05	37 70
†Hudson																
Ionia	1,600 00	16,505 88	750 00	18,855 88	50 45	18 80	69 25	25 75	18 80	44 55	17 97	18 80	36 77	25 58	18 80	44 38
Iron Mountain	2,500 00	42,535 54	1,519 26	46,554 80	41 08	7 02	48 10	17 55	7 02	24 57	16 63	7 02	23 65	19 09	7 02	26 11
Ironwood	4,550 00	35,806 00	8,050 00	48,406 00	46 41	11 39	57 80	22 51	11 39	33 90	16 10	11 39	27 49	21 25	11 39	32 64
Ishpeming	3,000 00	48,854 87	5,750 00	57,604 87	31 46	7 26	38 72	19 22	7 26	26 48	16 84	7 26	24 10	19 88	7 26	27 14
Jackson	2,500 00	71,699 29	6,268 66	80,437 95	46 20	9 57	55 86	22 28	9 57	31 85	16 10	9 57	25 67	21 34	9 57	30 91
Kalamazoo	12,748 50	105,758 87	12,689 16	131,196 53	49 33	10 89	60 22	24 27	10 89	35 16	18 55	10 89	29 44	25 64	10 89	36 53
Lansing	2,250 00	61,597 10	3,918 75	67,765 85	36 54	6 53	43 07	17 04	6 53	23 57	15 05	6 53	21 58	18 33	6 53	24 86
Lapeer	1,500 00	8,800 00	600 00	10,900 00	34 58	5 91	40 49	16 04	5 91	21 95	18 93	5 91	24 84	21 58	5 91	27 49
Ludington	3,762 50	23,515 07	2,630 00	29,907 57	31 85	10 71	42 56	22 75	10 71	33 46	15 00	10 71	25 71	19 07	10 71	29 78
Mackinac Island	900 00	1,755 00		2,655 00	35 71	6 29	42 00	16 04	6 29	22 33	12 28	6 29	18 57	21 24	6 29	27 53
Manistee	1,800 00	40,686 30	4,532 76	47,019 06	47 49	8 51	56 00	24 04	8 51	32 55	20 63	8 51	29 14	25 26	8 51	33 77
Manistique	1,500 00	17,470 00	1,450 00	20,420 00	39 71	11 18	50 89	22 35	11 18	33 53	17 94	11 18	29 12	23 47	11 18	34 65
Marine City	1,300 00	7,500 00	500 00	9,300 00	73 22	6 30	79 50	21 58	6 30	27 88	12 12	6 30	18 42	16 17	6 30	22 47
Marquette	2,700 00	39,850 00	5,807 38	48,357 38	51 23	12 26	63 49	24 50	12 26	36 76	20 03	12 26	32 29	25 84	12 26	38 10
Marshall	1,200 00	14,129 23	1,275 00	16,604 23	42 02	5 83	47 85	18 91	5 83	24 74	19 39	5 83	25 22	25 74	5 83	31 57
Mason	1,100 00	5,675 00	400 00	7,175 00	28 14	1 45	29 59	17 70	1 45	19 15	17 63	1 45	19 08	20 61	1 45	22 06
McBain	700 00	2,430 00		3,130 00	44 66	3 74	48 40	13 26	3 74	17 00	11 50	3 74	15 24	15 96	3 74	19 70
Menominee	2,500 00	36,268 09	5,270 00	44,038 09	43 56	9 76	53 32	18 28	9 76	28 04	16 16	9 76	25 92	20 35	9 76	30 11
Midland	950 00	7,107 30	550 00	8,607 30	21 91	9 77	31 68	14 12	9 77	23 89	12 34	9 77	22 11	14 94	9 77	24 71
Monroe	1,500 00	13,088 26	1,750 00	16,338 26	46 00	8 52	54 52	23 72	8 52	32 24	12 75	8 52	21 27	21 72	8 52	30 24
Mt. Clemens	1,650 00	18,485 00	1,350 00	21,485 00	52 43	10 72	63 15	17 18	10 72	27 90	17 49	10 72	28 21	22 68	10 72	33 40

*Not legally graded.
†No report received.

TABLE XIX.—*Continued.*

Incorporated cities.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Mt. Pleasant	$1,250 00	$8,675 00	$2,500 00	$12,425 00	$36 16	$9 07	$45 23	$24 84	$9 07	$33 91	$16 71	$9 07	$25 78	$26 66	$9 07	$35 73
Muskegon	3,000 00	74,371 39	5,373 29	82,744 68	38 65	10 50	49 15	21 49	10 50	31 99	17 82	10 50	28 32	22 39	10 50	32 89
Muskegon Heights	1,000 00	4,100 00	439 38	5,539 38	74 09	8 17	82 26	19 02	8 17	27 19	15 26	8 17	23 43	21 22	8 17	29 39
Negaunee	2,000 00	24,720 00	3,050 00	29,770 00	52 13	11 04	63 17	25 59	11 04	36 63	14 58	11 04	25 62	22 15	11 04	33 19
Niles	1,700 00	13,908 50	617 50	16,226 00	37 76	3 94	41 70	20 60	3 94	24 54	8 42	3 94	12 36	17 37	3 94	21 31
†North Muskegon																
Norway	1,600 00	18,375 00	1,236 00	21,211 00	43 10	19 66	62 76	13 45	19 66	33 11	16 26	19 66	35 92	18 23	19 66	37 89
Omer	650 00	1,200 00	150 00	2,000 00	35 00	8 36	43 36	15 00	8 36	23 36	13 07	8 36	21 43	17 38	8 36	25 74
Onaway	1,200 00	8,515 13	.....	9,715 13	69 11	9 50	78 61	17 50	9 50	27 00	12 18	9 50	21 68	17 07	9 50	26 57
†Owosso																
Petoskey	1,400 00	17,025 00	775 00	19,200 00	44 53	7 33	51 86	13 60	7 33	20 93	16 99	7 33	24 32	19 06	7 33	26 39
Pontiac	1,800 00	32,805 78	2,650 00	37,255 78	36 67	11 23	47 90	15 61	11 23	26 84	16 82	11 23	28 05	19 05	11 23	30 28
Port Huron	2,100 00	45,780 59	2,675 00	50,555 59	36 29	8 11	44 40	18 96	8 11	27 07	14 83	8 11	22 94	19 14	8 11	27 25
Rose City	750 00	1,600 00	.....	2,350 00	37 50	2 04	39 54	10 66	2 04	12 70	5 33	2 04	7 37	9 59	2 04	11 63
Saginaw	3,000 00	92,393 25	19,737 00	115,130 25	56 47	12 10	68 57	27 96	12 10	40 06	19 59	12 10	31 69	29 28	12 10	41 38
Saginaw, W. S	2,200 00	45,265 76	5,800 00	53,265 76	45 24	17 25	62 49	20 37	17 25	37 62	14 67	17 25	31 92	20 28	17 25	37 53
St. Clair	1,350 00	6,747 50	462 50	8,560 00	41 22	8 47	49 69	16 83	8 47	25 30	16 96	8 47	25 43	21 40	8 47	29 87
St. Ignace	1,150 00	7,283 30	.....	8,433 30	54 76	11 71	66 47	29 48	11 71	41 19	19 44	11 71	31 15	26 35	11 71	38 06
St. Johns	1,600 00	12,865 26	1,445 00	15,910 26	37 07	6 31	43 38	20 34	6 31	26 65	20 34	6 31	26 65	24 55	6 31	30 86
St. Joseph	1,800 00	17,303 96	1,950 00	21,053 96	56 72	10 83	67 55	21 73	10 83	32 56	14 93	10 83	25 76	23 06	10 83	33 89
St. Louis	1,400 00	7,575 00	800 00	9,775 00	40 44	9 69	50 13	17 03	9 69	26 72	16 27	9 69	25 96	21 20	9 69	30 89
Sandusky	900 00	2,753 50	.....	3,653 50	22 94	3 91	26 85	14 07	3 91	17 98	7 30	3 91	11 21	11 78	3 91	15 69
Sault Ste. Marie	2,700 00	36,240 00	3,400 00	42,340 00	35 72	9 87	45 59	22 24	9 87	32 11	15 04	9 87	24 91	20 06	9 87	29 93
South Haven	1,400 00	13,625 00	600 00	15,625 00	34 17	11 62	45 79	29 58	11 62	41 20	13 42	11 62	25 04	20 13	11 62	31 75
Standish	900 00	3,450 00	.....	4,350 00	47 05	10 04	57 09	12 61	10 04	22 65	11 96	10 04	22 00	16 86	10 04	26 90

Scottville	158 00	3,927 75	.....	4,085 75	22 33	5 28	27 61	14 46	5 28	19 74	13 23	5 28	18 51	16 27	5 28	21 55
Stanton	700 00	3,230 00	275 00	4,205 00	27 86	6 77	34 63	15 79	6 77	22 56	11 89	6 77	18 66	16 95	6 77	23 72
Sturgis	1,200 00	8,270 00	570 00	10,040 00	28 57	7 66	36 23	17 21	7 66	24 87	14 11	7 66	21 77	17 46	7 66	25 12
Tawas City	1,000 00	3,250 00	726 75	4,976 75	60 57	8 18	68 75	16 35	8 18	24 53	14 79	8 18	22 97	22 77	8 18	30 95
Three Rivers	1,700 00	16,265 72	570 00	18,535 72	45 67	4 22	49 89	13 52	4 22	17 74	23 61	4 22	27 83	11 24	4 22	15 46
Traverse City	2,115 00	32 684 58	2,547 75	37,347 33	31 66	6 99	38 65	15 39	6 99	22 38	.....	.....	.....	17 99	6 99	24 98
†West Branch	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whittemore	700 00	400 00	.....	1,100 00	12 07	2 64	14 71	.....	.....	.....	6 15	2 64	8 79	8 94	2 64	11 58
Wyandotte	1,500 00	16,525 00	1,775 00	19,800 00	59 83	9 89	69 72	26 27	9 89	36 16	18 94	9 89	28 83	25 71	9 89	35 60
Yale	1,100 00	4,305 00	.....	5,405 00	22 04	7 41	29 45	15 26	7 41	22 67	15 19	7 41	22 60	16 83	7 41	24 24
Ypsilanti	2,339 00	16,422 00	1,950 00	20,711 00	35 16	7 90	43 06	19 98	7 90	27 88	21 62	7 90	29 52	24 63	7 90	32 53
Zeeland	1,000 00	5,344 00	491 00	6,835 00	37 62	4 80	42 42	13 03	4 80	17 83	6 23	4 80	11 03	13 27	4 80	18 07

†No report received.

TABLE XIX.—*Continued.*

Incorporated cities.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Mt. Pleasant	$1,250 00	$8,675 00	$2,500 00	$12,425 00	$36 16	$9 07	$45 23	$24 84	$9 07	$33 91	$16 71	$9 07	$25 78	$26 66	$9 07	$35 73
Muskegon	3,000 00	74,371 39	5,373 29	82,744 68	38 65	10 50	49 15	21 49	10 50	31 99	17 82	10 50	28 32	22 39	10 50	32 89
Muskegon Heights	1,000 00	4,100 00	439 38	5,539 38	74 09	8 17	82 26	19 02	8 17	27 19	15 26	8 17	23 43	21 22	8 17	29 39
Negaunee	2,000 00	24,720 00	3,050 00	29,770 00	52 13	11 04	63 17	25 59	11 04	36 63	14 58	11 04	25 62	22 15	11 04	33 19
Niles	1,700 00	13,908 50	617 50	16,226 00	37 76	3 94	41 70	20 60	3 94	24 54	8 42	3 94	12 36	17 37	3 94	21 31
†North Muskegon																
Norway	1,600 00	18,375 00	1,236 00	21,211 00	43 10	19 66	62 76	13 45	19 66	33 11	16 26	19 66	35 92	18 23	19 66	37 89
Omer	650 00	1,200 00	150 00	2,000 00	35 00	8 36	43 36	15 00	8 36	23 36	13 07	8 36	21 43	17 38	8 36	25 74
Onaway	1,200 00	8,515 13	.....	9,715 13	69 11	9 50	78 61	17 50	9 50	27 00	12 18	9 50	21 68	17 07	9 50	26 57
†Owosso																
Petoskey	1,400 00	17,025 00	775 00	19,200 00	44 53	7 33	51 86	13 60	7 33	20 93	16 99	7 33	24 32	19 06	7 33	26 39
Pontiac	1,800 00	32,805 78	2,650 00	37,255 78	36 67	11 23	47 90	15 61	11 23	26 84	16 82	11 23	28 05	19 05	11 23	30 28
Port Huron	2,100 00	45,780 59	2,675 00	50,555 59	36 29	8 11	44 40	18 96	8 11	27 07	14 83	8 11	22 94	19 14	8 11	27 25
Ross City	750 00	1,600 00	.....	2,350 00	37 50	2 04	39 54	10 66	2 04	12 70	5 33	2 04	7 37	9 59	2 04	11 63
Saginaw	3,000 00	92,393 25	19,737 00	115,130 25	56 47	12 10	68 57	27 96	12 10	40 06	19 59	12 10	31 69	29 28	12 10	41 38
Saginaw, W. S	2,200 00	45,265 76	5,800 00	53,265 76	45 24	17 25	62 49	20 37	17 25	37 62	14 67	17 25	31 92	20 28	17 25	37 53
St. Clair	1,350 00	6,747 50	462 50	8,560 00	41 22	8 47	49 69	16 83	8 47	25 30	16 96	8 47	25 43	21 40	8 47	29 87
St. Ignace	1,150 00	7,283 30	.....	8,433 30	54 76	11 71	66 47	29 48	11 71	41 19	19 44	11 71	31 15	26 35	11 71	38 06
St. Johns	1,600 00	12,865 26	1,445 00	15,910 26	37 07	6 31	43 38	20 34	6 31	26 65	20 34	6 31	26 65	24 55	6 31	30 86
St. Joseph	1,800 00	17,303 96	1,950 00	21,053 96	56 72	10 83	67 55	21 73	10 83	32 56	14 93	10 83	25 76	23 06	10 83	33 89
St. Louis	1,400 00	7,575 00	800 00	9,775 00	40 44	9 69	50 13	17 03	9 69	26 72	16 27	9 69	25 96	21 20	9 69	30 89
Sandusky	900 00	2,753 50	.....	3,653 50	22 94	3 91	26 85	14 07	3 91	17 98	7 30	3 91	11 21	11 78	3 91	15 69
Sault Ste. Marie	2,700 00	36,240 00	3,400 00	42,340 00	35 72	9 87	45 59	22 24	9 87	32 11	15 04	9 87	24 91	20 06	9 87	29 93
South Haven	1,400 00	13,625 00	600 00	15,625 00	34 17	11 62	45 79	29 58	11 62	41 20	13 42	11 62	25 04	20 13	11 62	31 75
Standish	900 00	3,450 00	.....	4,350 00	47 05	10 04	57 09	12 61	10 04	22 65	11 96	10 04	22 00	16 86	10 04	26 90

Scottville	158 00	3,927 75	.....	4,085 75	22 33	5 28	27 61	14 46	5 28	19 74	13 23	5 28	18 51	16 27	5 28	21 55
Stanton	700 00	3,230 00	275 00	4,205 00	27 86	6 77	34 63	15 79	6 77	22 56	11 89	6 77	18 66	16 95	6 77	23 72
Sturgis	1,200 00	8,270 00	570 00	10,040 00	28 57	7 66	36 23	17 21	7 66	24 87	14 11	7 66	21 77	17 46	7 66	25 12
Tawas City	1,000 00	3,250 00	726 75	4,976 75	60 57	8 18	68 75	16 35	8 18	24 53	14 79	8 18	22 97	22 77	8 18	30 95
Three Rivers	1,700 00	16,265 72	570 00	18,535 72	45 67	4 22	49 89	13 52	4 22	17 74	23 61	4 22	27 83	11 24	4 22	15 46
Traverse City	2,115 00	32 684 58	2,547 75	37,347 33	31 66	6 99	38 65	15 39	6 99	22 38	.....	.....	.....	17 99	6 99	24 98
†West Branch	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whittemore	700 00	400 00	.....	1,100 00	12 07	2 64	14 71	.....	.....	.....	6 15	2 64	8 79	8 94	2 64	11 58
Wyandotte	1,500 00	16,525 00	1,775 00	19,800 00	59 83	9 89	69 72	26 27	9 89	36 16	18 94	9 89	28 83	25 71	9 89	35 60
Yale	1,100 00	4,305 00	.....	5,405 00	22 04	7 41	29 45	15 26	7 41	22 67	15 19	7 41	22 60	16 83	7 41	24 24
Ypsilanti	2,339 00	16,422 00	1,950 00	20,711 00	35 16	7 90	43 06	19 98	7 90	27 88	21 62	7 90	29 52	24 63	7 90	32 53
Zeeland	1,000 00	5,344 00	491 00	6,835 00	37 62	4 80	42 42	13 03	4 80	17 83	6 23	4 80	11 03	13 27	4 80	18 07

†No report received.

TABLE XIX.—*Continued.*

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total
Addison	$810 00	$1,704 00	$10 00	$2,524 00	$27 34	$8 92	$36 26	$12 91	$8 92	$21 83	$14 58	$8 92	$23 50	$18 55	$8 92	$27 47
†Akron																
Alanson	585 00	1,633 75		2,218 75	50 00	5 08	55 08	11 49	5 08	16 57	10 30	5 08	15 38	13 28	5 08	18 36
Algonac	1,100 00	4,185 00		5,285 00	40 79	12 21	53 00	22 34	12 21	34 55	11 42	12 21	23 63	17 50	12 21	29 71
Almont	1,100 00	2,451 25	337 50	3,888 75	34 44	4 45	38 89	13 44	4 45	17 89	14 70	4 45	29 15	18 43	4 45	22 88
Applegate		695 00		695 00				15 00	1 98	16 98	9 42	1 98	11 40	12 41	1 98	14 39
Armada	850 00	2,058 34		2,908 34	25 50	6 18	31 68	14 00	6 18	20 18	12 12	6 18	18 30	16 81	6 18	22 99
Ashley	600 00	1,727 50		2,327 50	43 45	6 16	49 61	12 81	6 16	18 97	9 65	6 16	15 81	16 39	6 16	22 55
Athens	900 00	2,700 00		3,600 00	23 09	4 71	27 80	13 56	4 71	18 27	13 56	4 71	18 27	16 98	4 71	21 69
*Atlanta																
Attica		550 00	350 00	900 00				13 75	9 51	23 26	7 77	9 51	17 28	10 58	9 51	20 09
Augusta	875 00	2,070 00		2,945 00	38 54	9 65	48 19	15 07	9 65	24 72	13 76	9 65	23 41	20 45	9 65	30 10
Baldwin	675 00	982 50		1,657 50	46 15	1 73	47 88	15 71	1 73	17 44	6 62	1 73	8 35	14 41	1 73	16 14
Bancroft	800 00	1,650 00	24 00	2,474 00	44 76	6 29	51 05	9 42	6 29	15 71	16 40	6 29	22 69	19 32	6 29	25 61
Bangor	477 50	5,054 00		5,531 50	26 58	9 94	36 52	12 75	9 94	22 69	12 15	9 94	22 09	15 80	9 94	25 74
Baraga	1,500 00	3,550 00		5,050 00	79 48	3 21	82 69	9 75	3 21	12 96	11 11	3 21	14 32	16 23	3 21	19 44
†Baroda																
Barryton	760 00	760 00		1,520 00	18 09	4 01	22 10	10 27	4 01	14 28	6 90	4 01	10 91	11 34	4 01	15 35
Bear Lake	810 00	1,275 00		2,085 00	16 20	5 43	21 63	6 10	5 43	11 53	13 45	5 43	18 88	11 77	5 43	17 20
Bellaire	1,050 00	3,595 00	270 00	4,915 00	34 21	5 40	39 61	15 63	5 40	21 03	10 99	5 40	16 39	16 06	5 40	21 46
Belleville	900 00	1,500 00		2,400 00	30 00	5 30	35 30	15 00	5 30	20 30	12 50	5 30	17 80	17 14	5 30	22 44
Bellevue	1,000 00	3,875 00	386 25	5,261 25	42 16	8 59	50 75	20 41	8 59	29 00	15 81	8 59	24 40	23 79	8 59	32 38
Bensonia	800 00	1,979 99		2,779 99	36 10	6 08	42 18	6 19	6 08	12 27	11 02	6 08	17 10	13 56	6 08	19 64
Berrien Springs	1,000 00	3,015 00		4,015 00	44 34	10 46	54 80	14 68	10 46	25 14	16 53	10 46	26 99	22 67	10 46	33 13
†Birmingham																
Blissfield No. 1 fr	525 00	900 00		1,425 00				21 00	8 37	29 37	13 04	8 37	21 41	15 20	8 37	23 57
Blissfield No. 2 fr	1,100 00	3,975 00	200 00	5,275 00	29 57	5 31	34 88	15 66	5 31	20 97	16 91	5 31	22 22	20 60	5 31	25 91
Bloomingdale	720 00	1,800 00		2,520 00	24 42	4 32	28 74	13 50	4 32	17 82	9 41	4 32	13 73	17 62	4 32	21 94
Boardman	720 00	1,485 00		2,205 00	17 77	3 60	21 37	13 33	3 60	16 93	9 44	3 60	13 04	12 11	3 60	15 71
Boyne Falls	630 00	1,273 50		1,903 50	40 14	11 77	51 91	11 84	11 77	23 61	13 20	11 77	24 97	19 62	11 77	31 39

Breckenridge	800 00	1,650 00	.....	2,450 00	28 26	3 10	31 36	12 12	3 10	15 22	10 12	3 10	13 22	16 01	3 10	19 11
†Breedsville	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brighton	800 00	2,000 00	.....	2,800 00	29 34	10 06	39 40	12 80	10 06	22 86	14 43	10 06	24 49	18 06	10 06	28 12
Britton	712 50	760 00	.....	1,472 50	20 95	3 71	24 66	15 83	3 71	19 54	9 99	3 71	13 70	15 18	3 71	18 89
Bronson	1,000 00	3,295 00	.....	4,295 00	22 50	8 73	31 23	16 99	8 73	25 72	20 12	8 73	28 85	19 88	8 73	28 61
Brooklyn	1,000 00	1,850 00	.....	2,850 00	33 88	2 86	36 74	12 50	2 86	15 36	15 17	2 86	18 03	20 50	2 86	23 36
Burlington	450 00	720 00	.....	1,170 00	15 51	5 03	20 54	21 17	5 03	26 20	15 00	5 03	20 03	16 71	5 03	21 74
Buchanan	1,200 00	5,155 00	84 00	6,439 00	39 21	6 78	45 99	21 21	6 78	27 99	14 43	6 78	21 21	21 97	6 78	28 75
Buckley	559 50	1,569 75	.....	2,129 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 00	4 02	16 02
Burr Oak	800 00	2,473 75	450 00	3,723 75	23 76	4 03	27 79	13 01	4 03	17 04	15 70	4 03	19 73	18 07	4 03	22 10
Byron	750 00	1,300 00	.....	2,050 00	16 26	7 70	23 96	16 98	7 70	24 68	17 76	7 70	25 46	17 08	7 70	24 78
Caledonia	800 00	1,275 00	.....	2,075 00	20 51	6 30	26 81	13 20	6 30	19 50	27 38	6 30	33 68	17 47	6 30	23 77
Calumet	3,500 00	138,290 06	1,850 00	143,640 06	47 15	7 62	54 77	13 15	7 62	20 77	27 00	7 62	34 62	22 77	7 62	30 39
Camden	850 00	1,465 00	.....	2,315 00	24 08	3 82	27 90	12 85	3 82	26 67	14 00	3 82	17 82	18 08	3 82	21 90
Capac	900 00	1,800 00	.....	2,700 00	29 65	6 57	36 22	16 25	6 57	22 82	10 53	6 57	17 10	16 66	6 57	23 23
Caro	1,200 00	8,007 50	400 00	9,607 50	28 86	5 04	33 90	15 17	5 04	20 21	14 57	5 04	19 61	18 48	5 04	23 52
Caseville	680 00	1,190 00	.....	1,870 00	170 00	5 17	175 17	11 38	5 17	16 55	10 27	5 17	15 44	16 69	5 17	21 86
†Cagon City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carsonville	.....	495 00	.....	495 00	.....	.....	.....	11 25	2 40	13 65	.....	.....	.....	.....	.....	.....
Casnovia	750 00	1,125 00	.....	1,875 00	32 43	4 56	36 99	12 60	4 56	17 16	8 00	4 56	12 56	17 65	4 56	22 21
Cass City	1,100 00	5,150 00	800 00	7,050 00	23 47	6 09	29 56	21 50	6 09	27 59	23 32	6 09	29 41	22 74	6 09	28 83
Cassopolis	1,100 00	3,927 50	475 00	5,502 50	42 12	8 18	50 30	18 95	8 18	27 13	13 74	8 18	21 92	22 73	8 18	30 91
Cedar Springs	1,000 00	2,855 00	500 00	4,355 00	22 89	9 30	42 19	14 70	9 30	24 00	12 13	9 30	21 43	18 53	9 30	27 83
Central Lake	1,100 00	3,785 00	500 00	5,385 00	43 74	4 01	47 75	16 80	4 01	20 81	15 34	4 01	19 35	20 88	4 01	24 89
Centerville	950 00	2,839 50	.....	3,789 50	57 60	5 58	63 18	16 13	5 58	21 71	19 49	5 58	25 07	26 31	5 58	31 89
Chelsea	1,200 00	5,900 00	400 00	7,500 00	26 23	7 99	34 22	19 54	7 99	27 53	19 72	7 99	27 71	21 99	7 99	29 98
Chesaning	1,300 00	3,925 00	.....	5,225 00	36 20	3 57	39 77	17 20	3 57	20 77	13 15	3 57	16 72	20 17	3 57	23 74
Clarkston	1,000 00	1,375 00	.....	2,375 00	31 78	5 89	37 67	14 76	5 89	20 65	15 36	5 89	21 25	21 59	5 89	27 48
Clayton	675 00	765 00	.....	1,440 00	19 28	7 18	26 46	15 57	7 18	22 75	14 40	7 18	21 58	16 74	7 18	23 92
*Clifford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Climax	650 00	1,710 00	.....	2,360 00	35 48	9 50	44 98	21 00	9 50	30 50	11 45	9 50	20 95	20 34	9 50	29 84
Clinton	950 00	2,489 00	.....	3,439 00	21 95	7 40	29 35	20 58	7 40	27 98	15 28	7 40	22 68	19 42	7 40	26 82
Clio	900 00	2,700 00	275 00	3,875 00	40 44	8 50	48 94	20 50	8 50	29 00	17 99	8 50	26 49	29 72	8 50	38 22
Coloma	765 00	2,475 00	.....	3,240 00	20 71	5 39	26 10	13 76	5 39	19 15	11 18	5 39	16 57	15 20	5 39	21 09
Colon	1,465 00	1,845 00	135 00	3,445 00	27 12	8 86	35 98	20 67	8 86	29 53	15 57	8 86	24 43	20 38	8 86	29 24
Columbiaville	1,000 00	1,610 00	.....	2,610 00	47 22	10 43	57 65	21 45	10 43	31 88	12 35	10 43	22 78	25 34	10 43	35 77
Concord	810 00	1,710 00	225 00	2,745 00	33 35	6 48	39 83	16 50	6 48	22 98	14 20	6 48	20 68	20 00	6 48	26 48
Constantine	1,200 00	4,125 00	.....	5,325 00	34 82	4 76	39 58	19 00	4 76	23 76	14 59	4 76	19 35	22 37	4 76	27 13
Coopersville	800 00	2,348 25	.....	3,148 25	26 52	5 73	32 25	10 06	5 73	15 79	13 22	5 73	18 95	9 87	5 73	15 60
Copemish	450 00	740 00	.....	1,190 00	12 16	2 97	15 13	8 00	2 97	10 97	6 22	2 97	9 19	8 32	2 97	11 29

*Not legally graded.
†No report received.

TABLE XIX.—*Continued.*

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
*Croton																
Custer	$540 00	$720 00		$1,260 00	$19 28	$2 65	$21 93	$12 00	$2 65	$14 65	$16 36	$2 65	$19 01	$15 75	$2 65	$18 40
*Daggett																
Dansville	700 00	1,200 00		1,900 00	26 92	5 55	32 47	25 00	5 55	30 55	16 66	5 55	22 21	23 17	5 55	28 72
Davison	950 00	2,050 00		3,000 00	22 31	4 29	26 60	22 36	4 29	26 65	9 43	4 29	13 72	18 51	4 29	22 80
Dearborn	850 00	3,000 00	$150 00	4,000 00	39 18	8 06	47 24	13 38	8 06	21 44	11 42	8 06	19 48	16 12	8 06	24 18
Decatur	1,000 00	3,490 50		4,490 50	29 82	5 76	35 58	12 17	5 76	17 93	8 03	5 76	13 79	14 34	5 76	20 10
Deckerville	900 00	1,757 50		2,657 50	27 12	4 57	31 69	11 64	4 57	16 21	7 93	4 57	12 50	13 15	4 57	17 72
Deerfield	1,250 00	1,035 00		2,285 00	32 89	11 69	44 58	8 00	11 69	19 69	7 67	11 69	25 05	13 36	11 69	25 05
†Delray																
Detour	800 00	1,690 00		2,490 00	30 76	7 30	38 06	13 08	7 30	20 38	9 30	7 30	16 60	13 83	7 30	21 13
Dexter	950 00	3,210 00	250 00	4,410 00	31 81	4 76	36 57	11 91	4 76	16 67	12 30	4 76	17 06	19 95	4 76	24 71
†Dimondale																
Douglas	720 00	1,260 00		1,980 00	25 95	4 36	30 31	12 71	4 36	17 07	13 08	4 36	17 44	17 84	4 36	22 20
Dryden	700 00	850 00		1,550 00	17 07	14 17	31 24	9 75	14 17	23 92	10 97	14 17	25 14	12 60	14 17	26 77
Dundee	855 00	2,565 00	387 00	3,807 00	25 62	5 17	30 79	12 21	5 17	17 38	13 66	5 17	18 83	17 07	5 17	22 24
Durand	1,300 00	5,612 50	800 00	7,712 50	48 80	6 02	54 82	14 55	6 02	20 57	14 11	6 02	20 13	19 93	6 02	25 95
*Eagle																
East Grand Rapids	600 00	1,400 00	160 00	2,160 00				23 44	10 76	34 20	19 22	10 76	29 98	20 37	10 76	31 13
East Jordan	700 00	9,046 25	475 00	10,221 25	29 20	6 69	35 89	22 74	6 69	29 43	13 67	6 69	20 36	18 96	6 69	25 65
†Eau Claire																
†Ecorse																
Edmore	1,000 00	2,213 50		3,213 50	21 42	3 29	24 71	14 85	3 29	18 14	17 08	3 29	20 37	17 37	3 29	20 66
Elk Rapids	1,372 22	7,821 25	270 00	9,463 47	37 83	7 36	45 19	19 07	7 36	26 43	16 96	7 36	24 32	21 80	7 36	29 16
Elkton	1,000 00	2,200 00		3,200 00	37 86	6 10	43 96	11 31	6 10	17 41	8 22	6 10	14 32	14 41	6 10	20 51
Elsie	850 00	2,725 00		3,575 00	25 40	6 86	32 26	16 94	6 86	23 80	12 16	6 86	19 02	17 87	6 86	24 73
*Emmet																
Empire	758 75	2,074 00		2,832 75	62 47	4 00	66 47	15 19	4 00	19 19	7 45	4 00	11 45	17 59	4 00	21 59
Emmetville	850 00	1,650 00	500 00	3,000 00				32 14	11 90	44 04	23 23	11 90	35 13	26 54	11 90	38 44
Evart	1,200 00	5,002 50		6,202 50	27 37	1 23	28 60	13 26	1 23	14 49	11 28	1 23	12 51	16 40	1 23	17 63

Fairgrove	700 00	1,200 00	.....	1,900 00	35 00	3 33	38 33	14 28	3 33	17 61	15 09	3 33	18 42	18 81	3 33	22 14
Farmington	750 00	1,550 00	.....	2,300 00	38 98	7 17	46 15	8 68	7 17	15 85	12 76	7 17	19 93	16 66	7 17	23 83
Farwell	720 00	2,025 00	.....	2,745 00	53 57	3 82	57 39	15 46	3 82	19 28	9 86	3 82	13 68	16 43	3 82	20 25
Fenville	900 00	1,755 00	.....	2,655 00	32 14	3 95	36 09	12 05	3 95	16 00	9 00	3 95	12 95	15 80	3 95	19 75
Fenton	1,450 00	8,003 00	.....	9,453 00	35 02	6 07	41 09	15 13	6 07	21 20	13 36	6 07	19 43	20 46	6 07	26 53
Fife Lake	630 00	810 00	.....	1,440 00	21 72	5 36	27 08	11 57	5 36	16 93	10 65	5 36	16 01	14 11	5 36	19 47
†Flushing																
Ford	1,000 00	4,195 00	550 00	5,745 00	.....	.....	.....	24 56	13 21	37 77	19 91	13 21	33 12	22 44	13 21	35 65
Forestville	574 00	215 00	.....	789 00	.....	.....	.....	15 94	3 44	19 38	4 30	3 44	7 74	9 17	3 44	12 61
†Fowler																
Fowlerville	1,000 00	3,075 00	225 00	4,300 00	28 63	6 58	35 21	19 68	6 58	26 26	19 40	6 58	25 98	22 16	6 58	28 74
*Frankenmuth																
Freeport	765 00	1,665 00	.....	2,430 00	26 70	3 67	30 37	21 41	3 67	25 08	10 44	3 67	14 11	17 36	3 67	21 03
Frankfort	1,300 00	5,575 00	600 00	7,475 00	23 00	6 07	29 07	16 39	6 07	22 46	14 14	6 07	20 21	16 35	6 07	22 42
*Fraser																
Fremont	950 00	5,925 00	375 00	7,250 00	23 00	6 45	29 45	17 22	6 45	23 67	12 53	6 45	18 98	16 44	6 45	22 89
Fruitport	700 00	850 00	.....	1,550 00	65 00	6 87	71 87	13 79	6 87	20 66	10 00	6 87	16 87	16 48	6 87	23 35
Gagetown	650 00	685 00	.....	1,335 00	28 26	4 46	32 72	18 00	4 46	22 46	11 21	4 46	15 67	18 54	4 46	23 00
Gaines	750 00	750 00	.....	1,500 00	31 25	4 89	36 14	7 21	4 89	12 10	8 52	4 89	13 41	12 50	4 89	17 39
Galesburg	900 00	2,414 25	237 30	3,551 55	40 59	6 85	47 44	19 34	6 85	26 19	11 80	6 85	18 65	22 47	6 85	29 32
†Galien																
*Garden																
Gaylord	1,100 00	5,044 84	.....	6,144 84	37 29	6 78	44 07	14 42	6 78	21 20	13 77	6 78	20 55	18 39	6 78	25 17
Gobleville	900 00	1,597 50	.....	2,497 50	20 77	7 96	28 73	11 60	7 96	19 56	8 79	7 96	16 75	14 03	7 96	21 99
Grandville	900 00	2,370 00	.....	3,270 00	22 50	25 40	47 90	20 10	25 40	45 50	25 65	25 40	51 05	86 05	25 40	111 45
Grant	712 50	855 00	.....	1,567 50	47 50	6 64	54 14	15 83	6 64	22 47	7 75	6 64	14 39	16 67	6 64	23 31
Grass Lake	900 00	2,550 00	200 00	3,650 00	24 20	4 94	29 14	13 96	4 94	18 90	11 58	4 94	16 52	16 44	4 94	21 38
Grayling	1,150 00	5,140 00	.....	6,290 00	39 33	6 67	46 00	17 58	6 67	24 25	5 30	6 67	11 97	14 80	6 67	21 47
†Grosse Pointe																
Grosse Pointe Farms	712 70	1,852 20	.....	2,564 90	.....	.....	.....	18 45	10 46	28 91	18 45	10 46	28 91	18 45	10 46	28 91
*Grosse Pointe Park																
Hamtramck	1,250 00	7,200 00	.....	8,450 00	.....	.....	.....	20 67	12 48	33 15	15 51	12 48	27 99	16 56	12 48	29 04
Hanover	700 00	1,575 00	.....	2,275 00												
Harbor Springs	1,400 00	6,613 00	1,022 00	9,035 00	55 49	9 68	65 17	18 98	9 68	28 66	14 43	9 68	24 11	22 25	9 68	31 93
Harrietta	675 00	1,350 00	.....	2,025 00	32 14	6 22	38 36	14 06	6 22	20 28	13 63	6 22	19 85	17 01	6 22	23 23
Hart	1,400 00	7,068 47	288 75	8,757 22	35 83	6 29	42 12	17 05	6 29	23 34	11 54	6 29	17 83	18 59	6 29	24 88
Hartford	800 00	3,735 00	70 00	4,605 00	19 58	5 31	24 89	13 44	5 31	18 75	10 07	5 31	15 38	13 46	5 31	18 77
Hersey	700 00	1,615 00	.....	2,315 00	43 88	6 90	50 78	18 15	6 90	25 05	13 96	6 90	20 86	23 38	6 90	30 28
Hesperia	810 00	1,890 00	.....	2,700 00	26 75	5 05	31 80	20 35	5 05	25 40	16 13	5 05	21 18	20 45	5 05	25 50
Highland Park	1,450 00	8,317 50	240 00	10,007 50	.....	.....	.....	30 64	10 58	41 22	17 12	10 58	27 70	21 85	10 58	32 43

*Not legally graded.
†No report received.

TABLE XIX.—*Continued.*

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
†Hillman																
Holly	$1,000 00	$3,696 88	$475 00	$5,171 88	$34 75	$7 19	$41 94	$12 01	$7 19	$19 20	$8 13	$7 19	$15 32	$16 01	$7 19	$23 20
Homer	900 00	3,525 00	550 00	4,975 00	33 78	6 70	40 48	25 85	6 70	32 55	13 18	6 70	19 88	22 82	6 70	29 52
Houghton	2,300 00	34,858 79	3,547 88	40,706 67	50 55	15 18	65 73	27 17	15 18	42 35	18 89	15 18	34 07	25 12	15 18	40 30
Howard City	1,000 00	3,234 75	285 00	4,519 75	30 11	6 11	36 22	16 79	6 11	22 90	11 01	6 11	17 12	16 86	6 11	22 97
Howell	1,400 00	7,707 50	500 00	9,607 50	34 78	10 32	45 10	15 67	10 32	25 99	13 42	10 32	23 74	19 64	10 32	29 96
Hubbardston	585 00	810 00	.....	1,395 00	30 79	5 09	35 88	13 50	5 09	18 59	14 46	5 09	19 55	18 11	5 09	23 20
†Hubbell																
Imlay City	1,000 00	3,180 00	180 00	4,360 00	23 20	13 19	36 39	12 38	13 19	25 57	11 33	13 19	24 52	14 93	13 19	28 12
Iron River	1,500 00	10,775 00	600 00	12,875 00	61 73	12 46	74 19	25 80	12 46	38 26	13 45	12 46	25 91	21 14	12 46	33 60
Ithaca	1,000 00	5,857 50	435 00	7,292 50	28 38	5 82	24 20	12 86	5 82	18 68	9 12	5 82	14 94	15 06	5 82	20 88
Jerome	540 00	720 00	.....	1,260 00	33 75	13 74	47 49	13 84	13 74	27 58	14 40	13 74	28 14	18 80	13 74	32 54
Jonesville	925 00	3,800 00	.....	4,725 00	35 95	4 66	40 61	10 56	4 66	15 22	10 43	4 66	15 09	17 31	4 66	21 97
Kalkaska	1,000 00	4,520 00	250 00	5,770 00	43 33	7 18	50 51	17 31	7 18	24 49	15 06	7 18	22 24	19 89	7 18	27 07
Kent City	800 00	1,182 00	.....	1,982 00	14 24	3 88	18 12	12 66	3 88	16 54	10 77	3 88	14 65	12 38	3 88	16 26
Kinde	700 00	450 00	.....	1,150 00	.....	.....	.....	14 00	2 37	16 37	7 14	2 37	9 51	10 17	2 37	12 54
Kingsley	900 00	1,575 00	.....	2,475 00	57 69	4 28	61 97	27 33	4 28	31 61	7 95	4 28	12 23	16 83	4 28	21 11
Kingston	500 00	750 00	.....	1,250 00	12 82	12 09	24 91	11 02	12 09	23 11	11 71	12 09	23 80	11 90	12 09	23 99
Laingsburg	850 00	1,725 00	.....	2,575 00	35 28	4 13	39 41	16 27	4 13	20 40	11 33	4 13	15 46	19 50	4 13	23 63
Lake Ann	540 00	360 00	.....	900 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 97	2 12	13 09
Lake City	810 00	2,570 00	.....	3,380 00	23 46	3 96	27 42	14 01	3 96	17 97	10 98	3 96	14 94	14 88	3 96	18 84
Lake Linden	1,700 00	17,930 23	1,384 29	21,014 52	52 38	18 41	70 79	33 93	18 41	52 34	23 49	18 41	41 90	32 03	18 41	50 44
Lake Odessa	900 00	4,052 25	285 00	5,237 25	24 63	5 29	29 92	16 68	5 29	21 97	15 51	5 29	20 80	18 44	5 29	23 73
Lakeview	1,200 00	3,070 25	.....	4,270 25	23 28	3 64	26 92	10 30	3 64	13 94	9 58	3 64	13 22	14 62	3 64	18 26
L'Anse	1,500 00	7,650 00	.....	9,150 00	91 93	4 41	96 34	15 36	4 41	19 77	11 66	4 41	16 07	18 08	4 41	22 49
§Laurium																
Lawrence	900 00	2,610 00	450 00	3,960 00	33 69	4 07	37 76	15 79	4 07	19 86	10 30	4 07	14 37	19 80	4 07	23 87
Lawton	900 00	2,662 50	.....	3,562 50	37 35	11 81	49 16	13 85	11 81	25 66	12 00	11 81	23 81	19 79	11 81	31 60
Leonard	600 00	725 00	.....	1,325 00	25 00	6 52	31 52	12 96	6 52	19 48	10 71	6 52	17 23	15 40	6 52	21 92
LeRoy	720 00	1,665 00	.....	2,385 00	42 27	5 71	47 98	18 42	5 71	24 13	11 98	5 71	17 69	19 39	5 71	25 10

Fairgrove	700 00	1,200 00	.....	1,900 00	35 00	3 33	38 33	14 28	3 33	17 61	15 09	3 33	18 42	18 81	3 33	22 14
Farmington	750 00	1,550 00	.....	2,300 00	38 98	7 17	46 15	8 68	7 17	15 85	12 76	7 17	19 93	16 66	7 17	23 83
Farwell	720 00	2,025 00	.....	2,745 00	53 57	3 82	57 39	15 46	3 82	19 28	9 86	3 82	13 68	16 43	3 82	20 25
Fenville	900 00	1,755 00	.....	2,655 00	32 14	3 95	36 09	12 05	3 95	16 00	9 00	3 95	12 95	15 80	3 95	19 75
Fenton	1,450 00	8,003 00	.....	9,453 00	35 02	6 07	41 09	15 13	6 07	21 20	13 36	6 07	19 43	20 46	6 07	26 53
Fife Lake	630 00	810 00	.....	1,440 00	21 72	5 36	27 08	11 57	5 36	16 93	10 65	5 36	16 01	14 11	5 36	19 47
†Flushing																
Ford	1,000 00	4,195 00	550 00	5,745 00	.....	.....	.....	24 56	13 21	37 77	19 91	13 21	33 12	22 44	13 21	35 65
Forestville	574 00	215 00	.....	789 00	.....	.....	.....	15 94	3 44	19 38	4 30	3 44	7 74	9 17	3 44	12 61
†Fowler																
Fowlerville	1,000 00	3,075 00	225 00	4,300 00	28 63	6 58	35 21	19 68	6 58	26 26	19 40	6 58	25 98	22 16	6 58	28 74
*Frankenmuth																
Freeport	765 00	1,665 00	.....	2,430 00	26 70	3 67	30 37	21 41	3 67	25 08	10 44	3 67	14 11	17 36	3 67	21 03
Frankfort	1,300 00	5,575 00	600 00	7,475 00	23 00	6 07	29 07	16 39	6 07	22 46	14 14	6 07	20 21	16 35	6 07	22 42
*Fraser																
Fremont	950 00	5,925 00	375 00	7,250 00	23 00	6 45	29 45	17 22	6 45	23 67	12 53	6 45	18 98	16 44	6 45	22 89
Fruitport	700 00	850 00	.....	1,550 00	65 00	6 87	71 87	13 79	6 87	20 66	10 00	6 87	16 87	16 48	6 87	23 35
Gagetown	650 00	685 00	.....	1,335 00	28 26	4 46	32 72	18 00	4 46	22 46	11 21	4 46	15 67	18 54	4 46	23 00
Gaines	750 00	750 00	.....	1,500 00	31 25	4 89	36 14	7 21	4 89	12 10	8 52	4 89	13 41	12 50	4 89	17 39
Galesburg	900 00	2,414 25	237 30	3,551 55	40 59	6 85	47 44	19 34	6 85	26 19	11 80	6 85	18 65	22 47	6 85	29 32
†Galien																
*Garden																
Gaylord	1,100 00	5,044 84	.....	6,144 84	37 29	6 78	44 07	14 42	6 78	21 20	13 77	6 78	20 55	18 39	6 78	25 17
Gobleville	900 00	1,597 50	.....	2,497 50	20 77	7 96	28 73	11 60	7 96	19 56	8 79	7 96	16 75	14 03	7 96	21 99
Grandville	900 00	2,370 00	.....	3,270 00	22 50	25 40	47 90	20 10	25 40	45 50	25 65	25 40	51 05	86 05	25 40	111 45
Grant	712 50	855 00	.....	1,567 50	47 50	6 64	54 14	15 83	6 64	22 47	7 75	6 64	14 39	16 67	6 64	23 31
Grass Lake	900 00	2,550 00	200 00	3,650 00	24 20	4 94	29 14	13 96	4 94	18 90	11 58	4 94	16 52	16 44	4 94	21 38
Grayling	1,150 00	5,140 00	.....	6,290 00	39 33	6 67	46 00	17 58	6 67	24 25	5 30	6 67	11 97	14 80	6 67	21 47
†Grosse Pointe																
Grosse Pointe Farms	712 70	1,852 20	.....	2,564 90	.....	.....	.....	18 45	10 46	28 91	18 45	10 46	28 91	18 45	10 46	28 91
*Grosse Pointe Park																
Hamtramck	1,250 00	7,200 00	.....	8,450 00	.....	.....	.....	20 67	12 48	33 15	15 51	12 48	27 99	16 56	12 48	29 04
Hanover	700 00	1,575 00	.....	2,275 00												
Harbor Springs	1,400 00	6,613 00	1,022 00	9,035 00	55 49	9 68	65 17	18 98	9 68	28 66	14 43	9 68	24 11	22 25	9 68	31 93
Harrietta	675 00	1,350 00	.....	2,025 00	32 14	6 22	38 36	14 06	6 22	20 28	13 63	6 22	19 85	17 01	6 22	23 23
Hart	1,400 00	7,068 47	288 75	8,757 22	35 83	6 29	42 12	17 05	6 29	23 34	11 54	6 29	17 83	18 59	6 29	24 88
Hartford	800 00	3,735 00	70 00	4,605 00	19 58	5 31	24 89	13 44	5 31	18 75	10 07	5 31	15 38	13 46	5 31	18 77
Hersey	700 00	1,615 00	.....	2,315 00	43 88	6 90	50 78	18 15	6 90	25 05	13 96	6 90	20 86	23 38	6 90	30 28
Hesperia	810 00	1,890 00	.....	2,700 00	26 75	5 05	31 80	20 35	5 05	25 40	16 13	5 05	21 18	20 45	5 05	25 50
Highland Park	1,450 00	8,317 50	240 00	10,007 50	.....	.....	.....	30 64	10 58	41 22	17 12	10 58	27 70	21 85	10 58	32 43

*Not legally graded.
†No report received.

TABLE XIX.—*Continued.*

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Morrice	$750 00	$1,600 00	.....	$2,350 00	$36 36	$20 88	$57 24	$13 46	$20 88	$34 34	$14 20	$20 88	$35 08	$20 25	$20 88	$41 13
Mt. Morris	850 00	1,725 00	.....	2,575 00	26 50	5 75	32 25	14 20	5 75	19 95	12 25	5 75	18 00	17 75	5 75	23 50
Muir	720 00	990 00	.....	1,710 00	24 82	4 45	29 27	24 00	4 45	28 45	12 35	4 45	16 80	18 00	4 45	22 45
*Mulliken																
Munising	2,350 00	9,600 00	$700 00	12,650 00	62 90	3 99	66 89	29 10	3 99	33 09	10 76	3 99	14 75	20 20	3 99	24 19
Nashville	900 00	3,965 68	200 00	5,065 68	37 38	9 39	46 77	12 20	9 39	21 59	11 22	9 39	20 61	17 96	9 39	27 35
*Naubinway																
Newaygo	900 00	4,100 00	.....	5,000 00	30 32	4 26	34 58	14 85	4 26	19 11	10 69	4 26	14 95	15 43	4 26	19 69
New Baltimore	1,000 00	2,300 00	450 00	3,750 00	65 00	6 25	71 25	20 65	6 25	26 90	9 88	6 25	16 13	23 14	6 25	29 39
Newberry	1,500 00	9,261 50	.....	10,761 50	44 57	6 94	51 51	23 94	6 94	30 88	20 16	6 94	27 10	24 62	6 94	31 56
*New Boston																
New Buffalo	800 00	1,260 00	.....	2,060 00	54 44	5 28	59 72	8 98	5 28	14 26	8 64	5 28	13 92	16 48	5 28	21 76
New Haven	630 00	855 00	.....	1,485 00	17 50	4 62	22 12	13 23	4 62	17 85	10 38	4 62	15 00	13 62	4 62	18 24
North Adams	1,000 00	2,748 50	.....	3,748 50	32 65	4 30	36 95	20 00	4 30	24 30	10 40	4 30	14 70	25 15	4 30	29 45
North Branch	1,050 00	2,743 75	.....	3,793 75	29 29	5 74	35 03	17 57	5 74	23 31	10 12	5 74	15 86	18 78	5 74	24 52
Northport	900 00	1,974 00	.....	2,874 00	36 48	5 73	42 21	6 86	5 73	12 59	14 16	5 73	19 89	16 42	5 73	22 15
†Northville																
Oakley		737 00		737 00				17 06	1 55	18 61	5 92	1 55	7 47	10 83	1 55	12 38
Olivet	800 00	2,900 00	150 00	3,850 00	34 56	7 33	41 89	17 52	7 33	24 85	21 97	7 33	29 30	24 67	7 33	32 00
Onekama	700 00	710 00	.....	1,410 00	22 58	5 90	28 48	13 33	5 90	19 23	10 93	5 90	16 83	15 66	5 90	21 56
Ontonagon	1,500 00	11,875 00	700 00	14,075 00	59 33	5 21	64 54	13 88	5 21	19 09	25 00	5 21	30 21	25 87	5 21	31 08
Orion	750 00	2,100 00	142 50	2,992 50	30 56	6 35	36 91	17 74	6 35	24 09	11 93	6 35	18 28	18 35	6 35	24 70
Ortonville	750 00	700 00	.....	1,450 00	20 83	1 77	22 60	8 33	1 77	10 10	7 00	1 77	8 77	11 32	1 77	13 09
Oscoda	900 00	2,894 50	.....	3,794 50	34 14	4 45	38 59	13 10	4 45	17 55	10 25	4 45	14 70	14 93	4 45	19 38
Otisville	750 00	792 00	3 00	1,545 00	21 42	5 17	26 59	13 26	5 17	18 43	9 92	5 17	15 09	14 71	5 17	19 88
Otsego	1,200 00	6,450 00	318 50	7,968 50	28 18	7 37	35 55	13 88	7 37	21 25	13 38	7 37	20 75	16 67	7 37	24 04
Otter Lake	522 50	378 00	.....	900 50	.....	.....	.....	18 66	2 11	20 77	8 04	2 11	10 15	12 00	2 11	14 11
Ovid	1,000 00	4,427 00	147 50	5,574 50	24 82	8 96	33 78	14 33	8 96	23 29	14 10	8 96	23 06	17 53	8 96	26 49
*Owendale																
Oxford	1,100 00	3,775 00	150 00	5,025 00	45 16	8 13	53 29	18 80	8 13	26 93	14 67	8 13	22 80	23 05	8 13	31 18

Parma	1,000 00	1,775 00	200 00	2,975 00	37 83	7 06	44 89	19 22	7 06	26 28	10 06	7 06	17 12	18 95	7 06	26 01
Paw Paw	1,300 00	4,085 00	1,000 00	6,385 00	24 90	13 28	38 18	13 31	13 28	26 59	17 07	13 28	30 35	18 66	13 28	31 94
Peck	550 00	225 00	.....	775 00	.....	.....	.....	13 09	1 47	14 56	4 68	1 47	6 15	8 61	1 47	10 08
Pellston	900 00	3,849 54	.....	4,749 54	38 77	9 45	48 22	13 15	9 45	22 60	12 03	9 45	21 48	16 72	9 45	26 17
Pentwater	1,000 00	3,600 00	450 00	5,050 00	41 90	7 22	49 12	17 63	7 22	24 85	18 56	7 22	25 78	22 54	7 22	29 76
*Perrinton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Perry	800 00	2,100 00	.....	2,900 00	44 85	7 34	52 19	12 41	7 34	19 75	11 56	7 34	18 90	17 26	7 34	24 60
Petersburg	720 00	1,827 00	.....	2,547 00	22 58	2 51	25 09	9 00	2 51	11 51	9 31	2 51	11 82	12 54	2 51	15 05
Pewamo	804 50	783 50	.....	1,588 00	47 32	16 62	63 94	16 00	16 62	32 62	17 48	16 62	34 10	24 81	16 62	41 43
Pierson	495 00	315 00	.....	810 00	12 07	2 01	14 08	.....	.....	.....	9 26	2 01	11 27	10 80	2 01	12 81
Pigeon	800 00	2,005 00	.....	2,805 00	31 70	3 80	35 60	16 01	3 90	19 91	4 54	3 90	8 44	14 16	3 90	18 06
Pinckney	800 00	1,786 00	.....	2,586 00	30 47	6 43	36 90	25 98	6 43	32 41	13 75	6 43	20 18	22 10	6 43	28 53
Pinconning	900 00	2,425 00	.....	3,325 00	52 00	9 85	61 85	13 66	9 85	23 51	10 10	9 85	19 95	16 70	9 85	26 55
Plainwell	1,200 00	4,125 32	304 00	5,629 32	34 33	6 69	41 02	21 26	6 69	27 95	14 35	6 69	21 04	21 73	6 69	28 42
Plymouth	1,300 00	5,929 50	350 00	7,579 50	25 72	7 83	33 55	19 97	7 83	27 80	15 00	7 83	22 83	19 33	7 83	27 16
Port Austin	800 00	2,250 00	.....	3,050 00	84 07	10 57	94 64	12 60	10 57	23 17	10 76	10 57	21 33	17 83	10 57	28 40
Port Hope	700 00	800 00	.....	1,500 00	53 07	3 23	56 30	15 38	3 23	18 61	12 50	3 23	15 73	21 12	3 23	24 35
Portland	1,300 00	5,883 75	.....	7,183 75	40 78	11 13	51 91	19 50	11 13	30 63	11 77	11 13	22 90	21 44	11 13	32 57
Port Sanilac	540 00	630 00	.....	1,170 00	31 76	3 50	35 26	12 41	3 50	15 91	6 75	3 50	10 25	13 60	3 50	17 10
*Posen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potterville	630 00	1,215 00	.....	1,845 00	37 06	5 89	42 95	10 12	5 89	16 01	11 09	5 89	16 98	14 10	5 89	19 99
Quincy	1,200 00	3,162 50	.....	4,362 50	25 22	96	26 18	13 73	96	14 69	12 31	96	13 27	18 17	96	19 13
Reading	600 00	3,602 50	262 50	4,465 00	26 96	11 46	38 42	13 37	11 46	24 83	12 93	11 46	24 39	18 15	11 46	29 61
*Redford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
‡Red Jacket	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Reed City	1,250 00	5,770 00	522 50	7,542 50	30 98	5 16	36 14	19 51	5 16	24 67	18 67	5 16	23 83	21 82	5 16	26 98
*Reese	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richland	720 00	1,120 00	.....	1,840 00	49 09	8 76	57 85	18 08	8 76	26 84	11 61	8 76	20 37	24 53	8 76	33 29
Richmond	1,050 00	3,570 50	500 00	5,120 50	47 55	10 21	57 76	16 12	10 21	26 33	12 16	10 21	22 37	19 54	10 21	29 75
River Rouge	2,125 00	16,116 76	1,470 00	19,711 76	97 68	16 27	113 95	29 84	16 27	46 11	16 55	16 27	32 82	24 10	16 27	40 37
Rochester	1,000 00	3,100 00	.....	4,100 00	35 75	4 56	40 31	12 06	4 56	16 62	8 33	4 56	12 89	14 80	4 56	19 36
Rockford	800 00	2,116 00	.....	2,916 00	37 14	5 69	42 83	9 16	5 69	14 85	9 30	5 69	14 99	13 88	5 69	19 57
Rogers	749 97	1,670 00	.....	2,419 97	28 84	5 18	34 02	9 27	5 18	14 45	8 81	5 18	13 99	11 36	5 18	16 54
Romeo	1,500 00	4,930 00	682 50	7,112 50	50 10	7 36	57 46	14 41	7 36	21 77	14 43	7 36	21 79	22 94	7 36	30 30
Roscommon	675 00	1,350 00	.....	2,025 00	67 50	6 65	74 15	8 10	6 65	14 75	10 80	6 65	17 45	17 45	6 65	24 10
Royal Oak	1,000 00	3,250 00	250 00	4,500 00	42 33	8 84	51 17	8 54	8 84	17 38	8 42	8 84	17 26	14 33	8 84	23 17
St. Charles	1,000 00	4,874 00	.....	5,874 00	59 52	5 75	65 27	16 81	5 75	22 56	10 96	5 75	16 71	16 73	5 75	22 48
*St. Clair Heights	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saline	1,050 00	2,800 00	200 00	4,050 00	34 18	6 40	40 58	21 11	6 40	27 51	18 73	6 40	25 13	24 69	6 40	31 09
†Sand Lake	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Not legally graded.
†No report received.

TABLE XIX.—*Continued.*

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Morrice	$750 00	$1,600 00	.....	$2,350 00	$36 36	$20 88	$57 24	$13 46	$20 88	$34 34	$14 20	$20 88	$35 08	$20 25	$20 88	$41 13
Mt. Morris	850 00	1,725 00	.....	2,575 00	26 50	5 75	32 25	14 20	5 75	19 95	12 25	5 75	18 00	17 75	5 75	23 50
Muir	720 00	990 00	.....	1,710 00	24 82	4 45	29 27	24 00	4 45	28 45	12 35	4 45	16 80	18 00	4 45	22 45
*Mulliken																
Munising	2,350 00	9,600 00	$700 00	12,650 00	62 90	3 99	66 89	29 10	3 99	33 09	10 76	3 99	14 75	20 20	3 99	24 19
Nashville	900 00	3,965 68	200 00	5,065 68	37 38	9 39	46 77	12 20	9 39	21 59	11 22	9 39	20 61	17 96	9 39	27 35
*Naubinway																
Newaygo	900 00	4,100 00	.....	5,000 00	30 32	4 26	34 58	14 85	4 26	19 11	10 69	4 26	14 95	15 43	4 26	19 69
New Baltimore	1,000 00	2,300 00	450 00	3,750 00	65 00	6 25	71 25	20 65	6 25	26 90	9 88	6 25	16 13	23 14	6 25	29 39
Newberry	1,500 00	9,261 50	.....	10,761 50	44 57	6 94	51 51	23 94	6 94	30 88	20 16	6 94	27 10	24 62	6 94	31 56
*New Boston																
New Buffalo	800 00	1,260 00	.....	2,060 00	54 44	5 28	59 72	8 98	5 28	14 26	8 64	5 28	13 92	16 48	5 28	21 76
New Haven	630 00	855 00	.....	1,485 00	17 50	4 62	22 12	13 23	4 62	17 85	10 38	4 62	15 00	13 62	4 62	18 24
North Adams	1,000 00	2,748 50	.....	3,748 50	32 65	4 30	36 95	20 00	4 30	24 30	10 40	4 30	14 70	25 15	4 30	29 45
North Branch	1,050 00	2,743 75	.....	3,793 75	29 29	5 74	35 03	17 57	5 74	23 31	10 12	5 74	15 86	18 78	5 74	24 52
Northport	900 00	1,974 00	.....	2,874 00	36 48	5 73	42 21	6 86	5 73	12 59	14 16	5 73	19 89	16 42	5 73	22 15
†Northville																
Oakley	.....	737 00	.....	737 00	.....	.....	.....	17 06	1 55	18 61	5 92	1 55	7 47	10 83	1 55	12 38
Olivet	800 00	2,900 00	150 00	3,850 00	34 56	7 33	41 89	17 52	7 33	24 85	21 97	7 33	29 30	24 67	7 33	32 00
Onekama	700 00	710 00	.....	1,410 00	22 58	5 90	28 48	13 33	5 90	19 23	10 93	5 90	16 83	15 66	5 90	21 56
Ontonagon	1,500 00	11,875 00	700 00	14,075 00	59 33	5 21	64 54	13 88	5 21	19 09	25 00	5 21	30 21	25 87	5 21	31 08
Orion	750 00	2,100 00	142 50	2,992 50	30 56	6 35	36 91	17 74	6 35	24 09	11 93	6 35	18 28	18 35	6 35	24 70
Ortonville	750 00	700 00	.....	1,450 00	20 83	1 77	22 60	8 33	1 77	10 10	7 00	1 77	8 77	11 32	1 77	13 09
Oscoda	900 00	2,894 50	.....	3,794 50	34 14	4 45	38 59	13 10	4 45	17 55	10 25	4 45	14 70	14 93	4 45	19 38
Otisville	750 00	792 00	3 00	1,545 00	21 42	5 17	26 59	13 26	5 17	18 43	9 92	5 17	15 09	14 71	5 17	19 88
Otsego	1,200 00	6,450 00	318 50	7,968 50	28 18	7 37	35 55	13 88	7 37	21 25	13 38	7 37	20 75	16 67	7 37	24 04
Otter Lake	522 50	378 00	.....	900 50	.....	.....	.....	18 66	2 11	20 77	8 04	2 11	10 15	12 00	2 11	14 11
Ovid	1,000 00	4,427 00	147 50	5,574 50	24 82	8 96	33 78	14 33	8 96	23 29	14 10	8 96	23 06	17 53	8 96	26 49
*Owendale																
Oxford	1,100 00	3,775 00	150 00	5,025 00	45 16	8 13	53 29	18 80	8 13	26 93	14 67	8 13	22 80	23 05	8 13	31 18

	00 00	1,775 00	200 00	2,975 00	37 83	7 06	44 89	19 22	7 06	26 28	10 06	7 06	17 12	18 95	7 06	26 01
	00 00	4,085 00	1,000 00	6,385 00	24 90	13 28	38 18	13 31	13 28	26 59	17 07	13 28	30 35	18 66	13 28	31 94
	550 00	225 00	.....	775 00	.....	.....	.....	13 09	1 47	14 56	4 68	1 47	6 15	8 61	1 47	10 08
	900 00	3,849 54	.....	4,749 54	38 77	9 45	48 22	13 15	9 45	22 60	12 03	9 45	21 48	16 72	9 45	26 17
.....	1,000 00	3,600 00	450 00	5,050 00	41 90	7 22	49 12	17 63	7 22	24 85	18 56	7 22	25 78	22 54	7 22	29 76
.....																
.....	800 00	2,100 00	.....	2,900 00	44 85	7 34	52 19	12 41	7 34	19 75	11 56	7 34	18 90	17 26	7 34	24 60
.....	720 00	1,827 00	.....	2,547 00	22 58	2 51	25 09	9 00	2 51	11 51	9 31	2 51	11 82	12 54	2 51	15 05
.....	804 50	783 50	.....	1,588 00	47 32	16 62	63 94	16 00	16 62	32 62	17 48	16 62	34 10	24 81	16 62	41 43
.....	495 00	315 00	.....	810 00	12 07	2 01	14 08	.....	.....	.....	9 26	2 01	11 27	10 80	2 01	12 81
Pigeon	800 00	2,005 00	.....	2,805 00	31 70	3 80	35 60	16 01	3 90	19 91	4 54	3 90	8 44	14 16	3 90	18 06
Pinckney	800 00	1,786 00	.....	2,586 00	30 47	6 43	36 90	25 98	6 43	32 41	13 75	6 43	20 18	22 10	6 43	28 53
Pinconning	900 00	2,425 00	.....	3,325 00	52 00	9 85	61 85	13 66	9 85	23 51	10 10	9 85	19 95	16 70	9 85	26 55
Plainwell	1,200 00	4,125 32	304 00	5,629 32	34 33	6 69	41 02	21 26	6 69	27 95	14 35	6 69	21 04	21 73	6 69	28 42
Plymouth	1,300 00	5,929 50	350 00	7,579 50	25 72	7 83	33 55	19 97	7 83	27 80	15 00	7 83	22 83	19 33	7 83	27 16
Port Austin	800 00	2,250 00	.....	3,050 00	84 07	10 57	94 64	12 60	10 57	23 17	10 76	10 57	21 33	17 83	10 57	28 40
Port Hope	700 00	800 00	.....	1,500 00	53 07	3 23	56 30	15 38	3 23	18 61	12 50	3 23	15 73	21 12	3 23	24 35
Portland	1,300 00	5,883 75	.....	7,183 75	40 78	11 13	51 91	19 50	11 13	30 63	11 77	11 13	22 90	21 44	11 13	32 57
Port Sanilac	540 00	630 00	.....	1,170 00	31 76	3 50	35 26	12 41	3 50	15 91	6 75	3 50	10 25	13 60	3 50	17 10
*Posen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potterville	630 00	1,215 00	.....	1,845 00	37 06	5 89	42 95	10 12	5 89	16 01	11 09	5 89	16 98	14 10	5 89	19 99
Quincy	1,200 00	3,162 50	.....	4,362 50	25 22	96	26 18	13 73	96	14 69	12 31	96	13 27	18 17	96	19 13
Reading	600 00	3,602 50	262 50	4,465 00	26 96	11 46	38 42	13 37	11 46	24 83	12 93	11 46	24 39	18 15	11 46	29 61
*Redford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
‡Red Jacket	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Reed City	1,250 00	5,770 00	522 50	7,542 50	30 98	5 16	36 14	19 51	5 16	24 67	18 67	5 16	23 83	21 82	5 16	26 98
*Reese	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richland	720 00	1,120 00	.....	1,840 00	49 09	8 76	57 85	18 08	8 76	26 84	11 61	8 76	20 37	24 53	8 76	33 29
Richmond	1,050 00	3,570 50	500 00	5,120 50	47 55	10 21	57 76	16 12	10 21	26 33	12 16	10 21	22 37	19 54	10 21	29 75
River Rouge	2,125 00	16,116 76	1,470 00	19,711 76	97 68	16 27	113 95	29 84	16 27	46 11	16 55	16 27	32 82	24 10	16 27	40 37
Rochester	1,000 00	3,100 00	.....	4,100 00	35 75	4 56	40 31	12 06	4 56	16 62	8 33	4 56	12 89	14 80	4 56	19 36
Rockford	800 00	2,116 00	.....	2,916 00	37 14	5 69	42 83	9 16	5 69	14 85	9 30	5 69	14 99	13 88	5 69	19 57
Rogers	749 97	1,670 00	.....	2,419 97	28 84	5 18	34 02	9 27	5 18	14 45	8 81	5 18	13 99	11 36	5 18	16 54
Romeo	1,500 00	4,930 00	682 50	7,112 50	50 10	7 36	57 46	14 41	7 36	21 77	14 43	7 36	21 79	22 94	7 36	30 30
Roscommon	675 00	1,350 00	.....	2,025 00	67 50	6 65	74 15	8 10	6 65	14 75	10 80	6 65	17 45	17 45	6 65	24 10
Royal Oak	1,000 00	3,250 00	250 00	4,500 00	42 33	8 84	51 17	8 54	8 84	17 38	8 42	8 84	17 26	14 33	8 84	23 17
St. Charles	1,000 00	4,874 00	.....	5,874 00	59 52	5 75	65 27	16 81	5 75	22 56	10 96	5 75	16 71	16 73	5 75	22 48
*St. Clair Heights	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saline	1,050 00	2,800 00	200 00	4,050 00	34 18	6 40	40 58	21 11	6 40	27 51	18 73	6 40	25 13	24 69	6 40	31 09
†Sand Lake	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Not legally graded.
†No report received.

TABLE XIX.—*Continued.*

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Morrice	$750 00	$1,600 00		$2,350 00	$36 36	$20 88	$57 24	$13 46	$20 88	$34 34	$14 20	$20 88	$35 08	$20 25	$20 88	$41 13
Mt. Morris	850 00	1,725 00		2,575 00	26 50	5 75	32 25	14 20	5 75	19 95	12 25	5 75	18 00	17 75	5 75	23 50
Muir	720 00	990 00		1,710 00	24 82	4 45	29 27	24 00	4 45	28 45	12 35	4 45	16 80	18 00	4 45	22 45
*Mulliken																
Munising	2,350 00	9,600 00	$700 00	12,650 00	62 90	3 99	66 89	29 10	3 99	33 09	10 76	3 99	14 75	20 20	3 99	24 19
Nashville	900 00	3,965 68	200 00	5,065 68	37 38	9 39	46 77	12 20	9 39	21 59	11 22	9 39	20 61	17 96	9 39	27 35
*Naubinway																
Newaygo	900 00	4,100 00		5,000 00	30 32	4 26	34 58	14 85	4 26	19 11	10 69	4 26	14 95	15 43	4 26	19 69
New Baltimore	1,000 00	2,300 00	450 00	3,750 00	65 00	6 25	71 25	20 65	6 25	26 90	9 88	6 25	16 13	23 14	6 25	29 39
Newberry	1,500 00	9,261 50		10,761 50	44 57	6 94	51 51	23 94	6 94	30 88	20 16	6 94	27 10	24 62	6 94	31 56
*New Boston																
New Buffalo	800 00	1,260 00		2,060 00	54 44	5 28	59 72	8 98	5 28	14 26	8 64	5 28	13 92	16 48	5 28	21 76
New Haven	630 00	855 00		1,485 00	17 50	4 62	22 12	13 23	4 62	17 85	10 38	4 62	15 00	13 62	4 62	18 24
North Adams	1,000 00	2,748 50		3,748 50	32 65	4 30	36 95	20 00	4 30	24 30	10 40	4 30	14 70	25 15	4 30	29 45
North Branch	1,050 00	2,743 75		3,793 75	29 29	5 74	35 03	17 57	5 74	23 31	10 12	5 74	15 86	18 78	5 74	24 52
Northport	900 00	1,974 00		2,874 00	36 48	5 73	42 21	6 86	5 73	12 59	14 16	5 73	19 89	16 42	5 73	22 15
†Northville																
Oakley		737 00		737 00				17 06	1 55	18 61	5 92	1 55	7 47	10 83	1 55	12 38
Olivet	800 00	2,900 00	150 00	3,850 00	34 56	7 33	41 89	17 52	7 33	24 85	21 97	7 33	29 30	24 67	7 33	32 00
Onekama	700 00	710 00		1,410 00	22 58	5 90	28 48	13 33	5 90	19 23	10 93	5 90	16 83	15 66	5 90	21 56
Ontonagon	1,500 00	11,875 00	700 00	14,075 00	59 33	5 21	64 54	13 88	5 21	19 09	25 00	5 21	30 21	25 87	5 21	31 08
Orion	750 00	2,100 00	142 50	2,992 50	30 56	6 35	36 91	17 74	6 35	24 09	11 93	6 35	18 28	18 35	6 35	24 70
Ortonville	750 00	700 00		1,450 00	20 83	1 77	22 60	8 33	1 77	10 10	7 00	1 77	8 77	11 32	1 77	13 09
Oscoda	900 00	2,894 50		3,794 50	34 14	4 45	38 59	13 10	4 45	17 55	10 25	4 45	14 70	14 93	4 45	19 38
Otisville	750 00	792 00	3 00	1,545 00	21 42	5 17	26 59	13 26	5 17	18 43	9 92	5 17	15 09	14 71	5 17	19 88
Otsego	1,200 00	6,450 00	318 50	7,968 50	28 18	7 37	35 55	13 88	7 37	21 25	13 38	7 37	20 75	16 67	7 37	24 04
Otter Lake	522 50	378 00		900 50				18 66	2 11	20 77	8 04	2 11	10 15	12 00	2 11	14 11
Ovid	1,000 00	4,427 00	147 50	5,574 50	24 82	8 96	33 78	14 33	8 96	23 29	14 10	8 96	23 06	17 53	8 96	26 49
*Owendale																
Oxford	1,100 00	3,775 00	150 00	5,025 00	45 16	8 13	53 29	18 80	8 13	26 93	14 67	8 13	22 80	23 05	8 13	31 18

Parma	1,000 00	1,775 00	200 00	2,975 00	37 83	7 06	44 89	19 22	7 06	26 28	10 06	7 06	17 12	18 95	7 06	26 01
Paw Paw	1,300 00	4,085 00	1,000 00	6,385 00	24 90	13 28	38 18	13 31	13 28	26 59	17 07	13 28	30 35	18 66	13 28	31 94
Peck	550 00	225 00	.....	775 00	.....	.....	.....	13 09	1 47	14 56	4 68	1 47	6 15	8 61	1 47	10 08
Pellston	900 00	3,849 54	.....	4,749 54	38 77	9 45	48 22	13 15	9 45	22 60	12 03	9 45	21 48	16 72	9 45	26 17
Pentwater	1,000 00	3,600 00	450 00	5,050 00	41 90	7 22	49 12	17 63	7 22	24 85	18 56	7 22	25 78	22 54	7 22	29 76
*Perrinton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Perry	800 00	2,100 00	.....	2,900 00	44 85	7 34	52 19	12 41	7 34	19 75	11 56	7 34	18 90	17 26	7 34	24 60
Petersburg	720 00	1,827 00	.....	2,547 00	22 58	2 51	25 09	9 00	2 51	11 51	9 31	2 51	11 82	12 54	2 51	15 05
Pewamo	804 50	783 50	.....	1,588 00	47 32	16 62	63 94	16 00	16 62	32 62	17 48	16 62	34 10	24 81	16 62	41 43
Pierson	495 00	315 00	.....	810 00	12 07	2 01	14 08	.....	.....	.....	9 26	2 01	11 27	10 80	2 01	12 81
Pigeon	800 00	2,005 00	.....	2,805 00	31 70	3 80	35 60	16 01	3 90	19 91	4 54	3 90	8 44	14 16	3 90	18 06
Pinckney	800 00	1,786 00	.....	2,586 00	30 47	6 43	36 90	25 98	6 43	32 41	13 75	6 43	20 18	22 10	6 43	28 53
Pinconning	900 00	2,425 00	.....	3,325 00	52 00	9 85	61 85	13 66	9 85	23 51	10 10	9 85	19 95	16 70	9 85	26 55
Plainwell	1,200 00	4,125 32	304 00	5,629 32	34 33	6 69	41 02	21 26	6 69	27 95	14 35	6 69	21 04	21 73	6 69	28 42
Plymouth	1,300 00	5,929 50	350 00	7,579 50	25 72	7 83	33 55	19 97	7 83	27 80	15 00	7 83	22 83	19 33	7 83	27 16
Port Austin	800 00	2,250 00	.....	3,050 00	84 07	10 57	94 64	12 60	10 57	23 17	10 76	10 57	21 33	17 83	10 57	28 40
Port Hope	700 00	800 00	.....	1,500 00	53 07	3 23	56 30	15 38	3 23	18 61	12 50	3 23	15 73	21 12	3 23	24 35
Portland	1,300 00	5,883 75	.....	7,183 75	40 78	11 13	51 91	19 50	11 13	30 63	11 77	11 13	22 90	21 44	11 13	32 57
Port Sanilac	540 00	630 00	.....	1,170 00	31 76	3 50	35 26	12 41	3 50	15 91	6 75	3 50	10 25	13 60	3 50	17 10
*Posen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potterville	630 00	1,215 00	.....	1,845 00	37 06	5 89	42 95	10 12	5 89	16 01	11 09	5 89	16 98	14 10	5 89	19 99
Quincy	1,200 00	3,162 50	.....	4,362 50	25 22	96	26 18	13 73	96	14 69	12 31	96	13 27	18 17	96	19 13
Reading	600 00	3,602 50	262 50	4,465 00	26 96	11 46	38 42	13 37	11 46	24 83	12 93	11 46	24 39	18 15	11 46	29 61
*Redford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
‡Red Jacket	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Reed City	1,250 00	5,770 00	522 50	7,542 50	30 98	5 16	36 14	19 51	5 16	24 67	18 67	5 16	23 83	21 82	5 16	26 98
*Reese	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richland	720 00	1,120 00	.....	1,840 00	49 09	8 76	57 85	18 08	8 76	26 84	11 61	8 76	20 37	24 53	8 76	33 29
Richmond	1,050 00	3,570 50	500 00	5,120 50	47 55	10 21	57 76	16 12	10 21	26 33	12 16	10 21	22 37	19 54	10 21	29 75
River Rouge	2,125 00	16,116 76	1,470 00	19,711 76	97 68	16 27	113 95	29 84	16 27	46 11	16 55	16 27	32 82	24 10	16 27	40 37
Rochester	1,000 00	3,100 00	.....	4,100 00	35 75	4 56	40 31	12 06	4 56	16 62	8 33	4 56	12 89	14 80	4 56	19 36
Rockford	800 00	2,116 00	.....	2,916 00	37 14	5 69	42 83	9 16	5 69	14 85	9 30	5 69	14 99	13 88	5 69	19 57
Rogers	749 97	1,670 00	.....	2,419 97	28 84	5 18	34 02	9 27	5 18	14 45	8 81	5 18	13 99	11 36	5 18	16 54
Romeo	1,500 00	4,930 00	682 50	7,112 50	50 10	7 36	57 46	14 41	7 36	21 77	14 43	7 36	21 79	22 94	7 36	30 30
Roscommon	675 00	1,350 00	.....	2,025 00	67 50	6 65	74 15	8 10	6 65	14 75	10 80	6 65	17 45	17 45	6 65	24 10
Royal Oak	1,000 00	3,250 00	250 00	4,500 00	42 33	8 84	51 17	8 54	8 84	17 38	8 42	8 84	17 26	14 33	8 84	23 17
St. Charles	1,000 00	4,874 00	.....	5,874 00	59 52	5 75	65 27	16 81	5 75	22 56	10 96	5 75	16 71	16 73	5 75	22 48
*St. Clair Heights	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saline	1,050 00	2,800 00	200 00	4,050 00	34 18	6 40	40 58	21 11	6 40	27 51	18 73	6 40	25 13	24 69	6 40	31 09
†Sand Lake	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Not legally graded.
†No report received.

TABLE XIX.—*Concluded.*

Incorporated villages.	Amount paid superintendent.	Amount paid regular teachers.	Amount paid special teachers.	Total amount paid for instruction.	Cost of education per capita in—											
					High school.			Grammar department.			Primary department.			Whole school.		
					Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.	Instruction.	Incidentals.	Total.
Saranac	$900 00	$2,725 00	.....	$3,625 00	$25 42	$6 47	$31 89	$14 55	$6 47	$21 02	$11 39	$6 47	$17 86	$16 47	$6 47	$22 94
Saugatuck	900 00	2,070 00	.....	2,970 00	23 27	5 16	28 43	35 21	5 16	40 37	10 00	5 16	15 16	22 50	5 16	27 66
Schoolcraft	1,000 00	2,790 00	$225 00	4,015 00	43 47	6 78	50 25	15 63	6 78	22 41	16 61	6 78	23 39	23 47	6 78	30 25
Sebewaing	1,000 00	3,236 25	.....	4,236 25	50 66	7 16	57 82	9 84	7 16	17 00	9 30	7 16	16 46	15 07	7 16	22 23
Shelby	1,100 00	4,690 00	570 00	6,360 00	22 62	4 78	27 40	21 01	4 78	25 79	14 23	4 78	19 01	18 27	4 78	23 05
Shepherd	850 00	2,430 00	427 50	3,707 50	25 75	23 89	49 64	14 21	23 89	38 10	12 15	23 89	36 04	16 04	23 89	39 93
Sheridan	630 00	1,102 50	.....	1,732 50	18 85	1 22	20 07	8 77	1 22	9 99	6 58	1 22	7 80	11 17	1 22	12 39
Sherman	600 00	1,215 00	.....	1,815 00	50 00	5 33	55 33	10 43	5 33	15 76	20 33	5 33	25 66	18 15	5 33	23 48
Sherwood	585 00	1,215 00	.....	1,800 00	22 50	13 27	35 77	17 60	13 27	30 87	8 43	13 27	21 70	16 36	13 27	29 63
*Sibley	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Frankfort	800 00	1,250 00	450 00	2,500 00	55 29	4 74	60 03	5 26	4 74	10 00	24 12	4 74	28 86	16 66	4 74	21 40
South Lyon	900 00	1,710 00	.....	2,610 00	33 41	4 95	38 36	13 43	4 95	18 38	10 03	4 95	14 98	16 83	4 95	21 78
Sparta	900 00	3,825 00	500 00	5,225 00	23 79	2 05	25 84	20 77	2 05	22 82	11 88	2 05	13 93	18 52	2 05	20 57
Spring Lake	900 00	1,710 00	.....	2,610 00	114 28	5 23	119 51	18 10	5 23	23 33	12 39	5 23	17 62	20 07	5 23	25 30
Springport	900 00	1,650 00	140 00	2,690 00	36 34	6 37	42 71	12 12	6 37	18 49	18 18	6 37	24 55	20 85	6 37	27 22
Stambaugh	1,500 00	11,030 25	700 00	13,230 25	48 36	11 85	60 21	18 75	11 85	30 60	16 95	11 85	28 80	19 68	11 85	31 53
Stanwood	540 00	625 50	.....	1,165 50	21 50	7 63	29 13	10 95	7 63	28 58	10 60	7 63	18 23	14 04	7 63	21 67
†Stephenson	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stevensville	640 00	1,570 00	.....	2,210 00	31 88	3 60	35 48	18 09	3 60	21 69	13 27	3 60	16 87	19 38	3 60	22 98
Stockbridge	900 00	2,250 00	.....	3,150 00	17 55	5 56	23 11	15 71	5 56	21 27	16 54	5 56	22 10	16 66	5 56	22 22
Sunfield	800 00	1,282 50	.....	2,082 50	38 34	7 87	46 21	21 37	7 87	29 24	13 80	7 87	21 67	25 09	7 87	32 96
Sutton's Bay	680 00	1,080 00	.....	1,760 00	52 30	10 87	63 17	15 31	10 87	26 18	11 61	10 87	22 48	18 14	10 87	29 01
Tecumseh	1,400 00	6,900 00	500 00	8,800 00	19 40	4 66	24 06	16 77	4 66	21 43	19 47	4 66	24 13	18 60	4 66	23 26
Tekonsha	900 00	1,781 00	225 00	2,906 00	30 43	2 03	32 46	6 74	2 03	8 77	21 01	2 03	23 04	16 89	2 03	18 92
Thompsonville	800 00	2,555 00	.....	3,355 00	40 74	17 09	57 83	10 74	17 09	27 83	9 59	17 09	26 68	14 09	17 09	31 18
Three Oaks	1,100 00	3,699 00	180 00	4,979 00	35 35	8 34	43 69	16 12	8 34	24 46	14 01	8 34	22 35	18 45	8 34	27 79
Trenton	950 00	4,293 30	.....	5,243 30	65 06	8 21	73 27	21 67	8 21	29 88	9 21	8 21	17 42	18 01	8 21	26 22
Tustin	675 00	1,215 00	.....	1,890 00	19 85	5 32	25 17	10 38	5 32	15 70	9 00	5 32	14 32	12 03	5 32	17 35
Twining	630 00	1,125 00	.....	1,755 00	21 12	2 81	23 93	6 44	2 81	9 25	11 91	2 81	14 72	12 35	2 81	15 16
Ubly	700 00	800 00	.....	1,500 00	18 81	4 22	23 03	9 52	4 22	13 74	7 69	4 22	11 91	11 45	4 22	15 67

Union City	1,200 00	5,460 00	600 00	7,260 00	37 46	4 22	41 68	21 74	4 22	25 96	18 66	4 22	22 88	24 36	4 22	28 58
Unionville	750 00	1,210 00	.....	1,960 00	18 75	4 47	23 22	9 78	4 47	14 25	9 38	4 47	13 85	11 73	4 47	16 20
Utica	850 00	1,940 00	.....	2,790 00	16 26	7 49	23 75	9 47	7 49	16 96	11 25	7 49	18 74	12 50	7 49	19 99
Vandalia	765 00	1,260 00	.....	2,025 00	15 93	4 78	20 71	11 84	4 78	16 62	21 84	4 78	26 62	16 46	4 78	21 24
Vanderbilt	700 00	1,350 00	.....	2,050 00	77 00	5 03	82 03	12 19	5 03	17 22	10 82	5 03	15 85	15 76	5 03	20 79
Vassar	1,250 00	5,300 00	500 00	7,050 00	29 50	6 39	35 89	18 33	6 39	24 72	21 48	6 39	27 87	23 19	6 39	29 58
Vermontville	1,000 00	2,493 75	.....	3,493 75	31 42	6 65	38 07	21 72	6 65	28 37	16 53	6 65	23 18	23 60	6 65	30 25
Vernon	775 00	1,282 50	.....	2,057 50	55 35	6 04	61 39	19 28	6 04	25 32	16 29	6 04	22 33	24 20	6 04	30 24
Vicksburg	1,200 00	4,950 00	.....	6,150 00	39 29	7 36	46 65	20 30	7 36	27 66	15 84	7 36	23 20	22 94	7 36	30 30
Wakefield	1,400 00	9,574 00	700 00	11,674 00	80 00	14 95	94 95	28 05	14 95	43 00	12 95	14 95	27 90	17 76	14 95	32 71
Waldron	700 00	1,192 50	.....	1,892 50	26 30	9 61	35 91	12 65	9 61	22 26	9 10	9 61	18 71	16 31	9 61	25 92
Warren	585 00	337 50	.....	922 50	.....	.....	.....	32 50	3 29	35 79	9 12	3 29	12 41	16 77	3 29	20 06
Watervliet	1,000 00	3,080 25	.....	4,080 25	31 74	5 14	36 88	14 27	5 14	19 41	11 00	5 14	16 14	16 72	5 14	21 86
Wayland	720 00	1,620 00	.....	2,340 00	16 25	4 67	20 92	11 54	4 67	16 21	8 19	4 67	12 86	11 75	4 67	16 42
Wayne	1,100 00	3,752 50	250 00	5,102 50	18 07	12 40	30 47	15 29	12 40	27 67	12 77	12 40	25 17	15 14	12 40	27 54
Webberville	675 00	720 00	.....	1,395 00	16 87	3 08	19 95	10 90	3 08	13 98	11 25	3 08	14 33	13 28	3 08	16 36
*Westphalia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Cloud	675 00	1,845 00	90 00	2,610 00	50 22	3 38	53 60	8 67	3 38	12 05	10 13	3 38	13 51	14 26	3 38	17 64
Whitehall	1,000 00	4,157 00	111 00	5,268 00	31 90	4 53	36 43	18 78	4 53	23 31	10 56	4 53	15 09	17 85	4 53	22 38
White Pigeon	1,050 00	2,407 50	.....	3,457 50	39 25	6 49	45 74	14 56	6 49	21 05	10 62	6 49	17 11	19 98	6 49	26 47
Williamston	1,100 00	4,200 00	320 00	5,620 00	34 16	5 74	39 90	14 80	5 74	20 54	12 61	5 74	18 35	18 54	5 74	24 28
Wolverine	760 00	2,845 00	.....	3,605 00	36 17	4 64	40 81	15 08	4 64	19 72	14 25	4 64	18 89	18 30	4 64	22 94
Woodland	585 00	810 00	.....	1,395 00	20 88	4 10	24 98	17 60	4 10	21 70	11 57	4 10	15 67	16 22	4 10	20 32

*Not legally graded.
†No report received.

TABLE XX.—*Special report of the*

Incorporated cities.	No. of teachers in school including superintendent and special teachers.	No. of special teachers employed.	No. of instructors in manual training.	No. of instructors in penmanship.	No. of instructors in drawing.	No. of instructors in music.	No. of instructors in kindergarten.	No. of instructors in commercial course.	No. of instructors in physical culture.	No. of instructors in domestic science.	How many of your teachers of music, drawing and kindergarten are qualified according to Act No. 24 of 1905?
Adrian	55	8	1	.....	1	1	.....	2	1	2	1
Albion	34	5	1	.....	1	1	.....	1	.....	1	2
Allegan	25	3	.5	.....	.5	.5	.....	1	.....	.5	3
Alma	22	3	1	.....	.5	.5	1	.....	.....	.....	.....
Alpena	58	5	.....	1	.5	1	1	1.5	.....	.....	2
Ann Arbor	88	9	1	.....	1.3	1	1	2.6	1.1	1	.....
Au Gres	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Au Sable	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bad Axe	14	1	.....	.....	5	.5	.....	.....	.....	.....	1
Battle Creek	126	10	3	.....	2	2	.....	.....	1	2	.....
Bay City	227	18	1	1	1	1	8	4	.....	2	10
Beaverton	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belding	23	5	1	.5	.5	.5	2	.5	.....	.....	3
Benton Harbor	49	4	1	1	1	.....	.....	.....	.....	1	.....
Bessemer	41	7	1	.....	.5	.5	4	.....	.....	1	5
Big Rapids	31	2	.....	.....	.5	.5	.....	1	.....	.....	1
Boyne City	33	3	.....	.....	.5	.5	2	.....	.....	.....	3
Brown City	7	.5	.....	.....	.....	.....	.5	.....	.....	.....	1
Cadillac	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charlevoix	20	1	.....	.....	.5	.5	.....	.....	.....	.....	1
Charlotte	30	3	1	.....	.5	.5	.....	1	.....	.....	1
Cheboygan	39	5	1	.....	.5	.5	.....	2	.....	1	1
Clare	12	1	.....	.....	.5	.5	.....	.....	.....	.....	.....
Coldwater	39	6	1	.....	.5	.5	2	1	.....	1	1
Coleman	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Corunna	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Croswell	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Crystal Falls	42	7	1	.....	.5	.5	4	.....	.....	1	3
Detroit	1,500	7	1	.....	2	1	1	.....	2	.....	.....
Dowagiac	32	5	.....	.....	.5	.5	3	1	.....	.....	4
East Lansing	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
East Tawas	11	1	.....	.....	.....	.....	1	.....	.....	.....	1
Eaton Rapids	17	4	1	.....	.5	.5	1	.....	.....	1	2
Escanaba	70	12	.....	.3	1	1	6	1.7	.....	2	2
Flint	132	15	1	1	1	1	9	1	.....	1	11
Gladstone	24	2	.....	.....	.....	.....	1	1	.....	.....	1
Gladwin	7	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Grand Haven	36	6	.....	1	.5	.5	3	1	.....	.....	3
Grand Ledge	16	1	.....	.....	.5	.5	.....	.....	.....	.....	1
Grand Rapids	490	87	23	.....	4	1	48	4	1	6	29
Greenville	24	2	.....	.....	.5	.5	.....	1	.....	.....	2
Hancock	39	3	.....	.....	.....	1	.....	2	.....	.....	1
Harrison	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrisville	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hastings	29	5	1	.....	.5	.5	1	1	1	.....	2
Hillsdale	35	6	.5	.....	.5	1	3	.....	.....	1	3
Holland	54	8	1	.....	1	1	5	.....	.....	.....	3
Hudson	19	1	.....	.....	.5	.5	.....	.....	.....	.....	1
Ionia	33	2	.....	.....	.5	.5	.....	1	.....	.....	1
Iron Mountain	70	5	1	.....	1	1	.....	1	.....	1	.....
Ironwood	99	23	2	.....	1	1	14	1	.....	4	9
Ishpeming	85	19	3	1	1	1	10	1	.....	2	.....
Jackson	127	11	6	.....	1	1	1	1	.....	1	2
Kalamazoo	196	41	8	.1	3	2	19	2.9	3	3	23
Lansing	124	11	2	...	1	1	6	....	.....	1	5

superintendents of city schools.

How many other special teachers are holders of certificates other than city certificates?	If not how many have been granted city certificates?	Are all regular teachers holders of legal certificates of qualifications?	No. holding certificates granted upon examination or indorsed by the State Board of Education.	No. holding Western Normal School certificates.	No. holding Northern Normal School certificates.	No. holding Central Normal School certificates.	No. holding State Normal College certificates.	No. holding certificates granted by State University under provisions of Sec. 4804 of compiled laws.	No. holding college certificates granted according to Sec. 4805 of compiled laws.	No. holding city certificates of first grade.	No. holding city certificates of second grade.	No. holding city certificates of third grade.	No. holding county certificates.	Portion of superintendent's time given to supervision.
4	3	yes	.....	.....	.....	.....	12	6	6	3	2	9	9	all
2	1	yes	.....	3	.....	4	13	1	6	.....	.....	1	1	1-5
.....	.....	yes	.....	13	.....	1	5	2	1	.....	.....	.....	.....	1-3
3	.....	yes	.....	.....	.....	3	7	1	3	.....	.....	.....	5	5-7
2	1	yes	.....	.....	.....	.....	.....	.....	.....	8	18	27	....	all
.....	9	yes	.....	.....	.....	.....	.....	.....	.....	25	27	27	....	all
.....	.....	yes	.....	1	.....	.....	1	.....	.....	.....	.....	.....	1	1-3
.....	.....	yes	.....	.....	.....	.....	2	.....	1	.....	.....	.....	7	3-5
.....	.....	yes	.....	.....	.....	3	3	1	1	3	.....	.....	2	1-2
.....	10	yes	.....	2	.....	2	14	12	6	5	54	3	18	all
8	.....	yes	.....	.....	.....	5	7	20	10	132	.....	35	....	all
.....	.....	yes	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	5	.....
2	.....	yes	.....	.....	1	1	9	2	1	.....	2	.....	2	1-2
2	2	yes	1	2	.....	1	16	2	5	2	6	3	7	all
2	.....	yes	.....	.....	7	.....	8	4	.....	.....	4	6	5	1-2
.....	1	yes	1	1	.....	3	3	2	2	1	5	5	6	all
.....	.....	yes	1	.....	.....	4	5	2	.....	.....	.....	.....	18	all
.....	.....	yes	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	3	2-7
.....	.....	yes	1	3	.....	4	21	5	.....	5	1	3	7	all
.....	.....	yes	.....	.....	.....	6	2	.....	4	.....	.....	.....	7	all
2	.....	yes	.....	.....	.....	.....	17	3	3	1	3	.....	.....	5-7
4	.....	yes	.....	1	.....	6	10	1	3	2	11	.....	.....	all
1	.....	yes	.....	.....	.....	5	5	.....	.....	.....	.....	.....	1	1-4
5	.....	yes	4	1	.....	.....	11	.....	.....	6	7	4	.....	7-8
.....	.....	yes	.....	.....	.....	1	3	.....	.....	.....	.....	.....	5	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	yes	2	.....	.....	1	3	.....	2	.....	.....	.....	2	all
4	.....	yes	.....	.....	6	.....	4	5	.....	.....	.....	.....	20	all
.....	.....	yes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	all
.....	1	yes	.....	3	.....	2	6	2	1	3	8	2	....	6-7
.....	.....	yes	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....
.....	.....	yes	.....	.....	.....	1	3	.....	3	.....	.....	.....	3	1-3
.....	2	yes	.....	.....	.....	.....	6	1	1	.....	4	.....	1	1-2
8	2	yes	11	.....	24	.....	6	8	.....	7	1	1	....	all
3	1	yes	.....	.....	.....	.....	.....	1	.....	18	38	60	.....	.....
.....	1	yes	.....	.....	8	1	5	1	1	2	4	.....	.....	1-2
.....	.....	yes	.....	.....	.....	2	2	.....	.....	.....	.....	.....	2	1-3
1	2	yes	.....	1	.....	.....	8	3	1	4	11	.....	2	6-7
.....	.....	yes	.....	.....	.....	.....	11	.....	2	.....	.....	.....	2	1-2
.....	58	yes	.....	.....	.....	.....	.....	.....	.....	91	223	89	....	all
.....	.....	yes	.....	.....	.....	2	5	2	1	.....	.....	.....	12	2-3
.....	.....	yes	2	1	13	.....	7	3	1	5	.....	.....	6	all
.....	.....	yes	1	.....	.....	1	.....	.....	.....	.....	.....	.....	3	.....
.....	.....	yes	1	.....	.....	.....	2	.....	.....	.....	.....	.....	1	1-10
3	.....	yes	1	2	.....	1	6	4	4	.....	2	....	4	3-4
1	2	yes	.....	.....	.....	.....	12	1	7	.....	3	6	....	4-5
5	.....	yes	.....	4	.....	4	23	2	5	.....	1	2	5	all
.....	.....	yes	1	.....	.....	.....	8	1	3	.....	2	1	2	3-5
.....	1	yes	2	.....	.....	1	10	3	5	2	4	3	1	6-7
.....	5	yes	.....	.....	14	.....	9	2	1	10	22	7	....	all
5	9	yes	.....	1	10	2	3	4	.....	11	15	30	....	all
10	9	yes	.....	.....	40	.....	5	5	11	5	.....	.....	....	all
7	2	yes	.....	.....	.....	.....	.....	.....	.....	18	35	53	....	all
16	2	yes	10	20	1	1	30	9	11	29	18	20	6	all
.....	6	yes	.....	2	.....	.....	34	6	7	37	21	2	4	all

TABLE XX.—*Concluded.*

Incorporated cities.	No. of teachers in school including superintendent and special teachers.	No. of special teachers employed.	No. of instructors in manual training.	No. of instructors in penmanship.	No. of instructors in drawing.	No. of instructors in music.	No. of instructors in kindergarten.	No. of instructors in commercial course.	No. of instructors in physical culture.	No. of instructors in domestic science.	How many of your teachers of music, drawing and kindergarten are qualified according to Act No. 24 of 1905?
Lapeer	19	2	.....	.....	.5	.5	.....	1	.....	.....	1
Ludington	56	4	1	.....	1	1	.....	.....	.....	1	2
Mackinac Island	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Manistee	75	14	1.5	1	1	1	6	2	.....	1.5	4
Manistique	32	6	.....	.....	.5	.5	3	1	.....	1	4
Marine City	18	1	.....	.....	.5	.5	.....	.....	.....	.....	1
Marquette	67	11	2	.....	1	1	4	1	.....	2	6
Marshall	30	3	1	.....	1	1	.....	.....	.....	.....	2
Mason	15	1	.....	.....	.5	.5	.....	.....	.....	.....	1
McBain	7	2	.....	.....	.5	.5	1	.....	.....	.....	1
Menominee	66	11	1	1	.5	.5	5	1	.....	1	6
Midland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monroe	29	8	1	.5	.5	1	3	1	.....	1	5
Mt. Clemens	39	6	.....	.....	1	1	3	1	.....	.....	5
Mt. Pleasant	20	4	1	.....	.5	.5	.....	1	.....	1	1
Muskegon	135	36	11	1	4	1	11	2	4	2	.....
Muskegon Heights	11	2	.....	.....	.5	.5	1	.....	.....	.....	2
Negaunee	43	7	1	.....	.5	.5	3	1	.....	1	4
Niles	29	1	.....	.....	.....	1	.....	.....	.....	.....	1
North Muskegon	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Norway	35	1	.....	.....	.5	.5	.....	.....	.....	.....	1
Omer	5	1	.....	.....	.....	1	.....	.....	.....	.....	1
Onaway	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Owosso	50	5	1	.....	1	1	.....	.....	1	1	2
Petoskey	32	3	.....	.....	1	1	.....	1	.....	.....	.....
Pontiac	57	9	1	.....	1	1	5	.....	.....	1	8
Port Huron	93	6	1	.....	1	1	.....	2	.....	1	.....
Rose City	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saginaw, E. S.	159	27	7	1	3	2	.....	3	2	9	.....
Saginaw, W. S.	85	7	2	.....	1	1	.....	1	.....	2	2
St. Clair	15	2	.....	.....	.5	.5	1	.....	.....	.....	1
St. Ignace	13	1	.....	.....	.....	.....	1	.....	.....	.....	1
St. Johns	28	3	.5	.....	.5	1	.....	.....	1	.....	2
St. Joseph	38	7	.....	.....	1	1	4	1	.....	.....	6
St. Louis	18	3	.5	.....	.5	.5	1	.5	.....	.....	2
Sandusky	7	1	.....	.....	.....	.....	1	.....	.....	.....	1
Sault Ste. Marie	61	8	1	.5	1	1	3	.5	.....	1	5
Scottville	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Haven	28	2	.....	.....	.5	.5	.....	1	.....	.....	1
Standish	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stanton	10	2	.....	.....	.5	.5	1	.....	.....	.....	2
Sturgis	21	2	.....	.....	.5	.5	1	.....	.....	.....	2
Tawas City	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Three Rivers	33	6	.5	.....	.5	.5	3	1	.....	.5	.....
Traverse City	65	10	1	.....	1	1	5	1	.....	1	7
West Branch	12	3	.....	.3	.7	1	1	.....	.....	.....	3
Whittemore	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wyandotte	35	5	1	.....	1	1	2	.....	.....	.....	3
Yale	11	1	.....	.....	.....	.....	1	.....	.....	.....	1
Ypsilanti	32	3	.5	.....	.5	1	.....	.....	.....	1	1
Zeeland	19	3	.....	.....	.5	.5	2	.....	.....	.....	3

TABLE XX.—*Concluded.*

How many other special teachers are holders of certificates other than city certificates?	If not how many have been granted city certificates?	Are all regular teachers holders of legal certificates of qualifications?	No. holding certificates granted upon examination or indorsed by the State Board of Education.	No. holding Western Normal School certificates.	No. holding Northern Normal School certificates.	No. holding Central Normal School certificates.	No. holding State Normal College certificates.	No. holding certificates granted by State University under provisions of Sec. 4904 of compiled laws.	No. holding college certificates granted according to Sec. 4905 of compiled laws.	No. holding city certificates of first grade.	No. holding city certificates of second grade.	No. holding city certificates of third grade.	No. holding county certificates.	Portion of superintendent's time given to supervision.
1	.....	yes	.....	.....	.....	2	7	3	.....	.....	.....	.....	5	4-5
1	1	yes	3	2	.....	2	19	.....	3	3	9	9	2	all
.....	.....	yes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1-8
1	9	yes	1	.....	.....	2	6	4	3	4	18	23	....	all
1	1	yes	.....	1	3	.....	9	2	3	3	3	2	....	all
.....	.....	yes	.....	.....	.....	1	10	1	.....	.....	.....	.....	5	5-8
5	.....	yes	6	.....	32	.....	2	7	.....	9	.....	.....	.....	all
1	.....	yes	.....	.....	.....	1	4	5	4	2	3	6	2	3-4
.....	.....	yes	.....	.....	.....	1	10	.....	2	.....	.....	.....	1	3-7
1	.....	yes	1	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....
3	2	yes	.....	.....	.....	.....	.....	1	.....	4	17	33	....	all
.....	.....	yes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1	2	yes	.....	.....	.....	1	4	6	2	.....	4	3	1	6-7
.....	1	yes	.....	.....	.....	.....	12	8	.....	2	5	4	2	all
3	.....	yes	.....	.....	.....	2	2	4	2	.....	.....	3	3	6-7
.....	36	yes	.....	.....	.....	.....	.....	.....	.....	47	33	19	....	all
.....	.....	yes	.....	.....	.....	2	4	.....	.....	.....	.....	.....	3	2-7
.....	3	yes	1	.....	25	.....	2	4	.....	4	.....	.....	.....	all
.....	.....	yes	2	5	.....	1	4	2	3	.....	1	.....	10	all
.....	.....	yes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	all
.....	.....	yes	.....	1	8	1	12	3	.....	2	1	6	....	2-3
.....	.....	yes	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	3	.....
.....	.....	yes	.....	.....	.....	14	1	.....	.....	.....	.....	.....	4	3-4
2	1	yes	.....	.....	.....	5	21	4	1	1	4	8	1	6-7
.....	3	yes	.....	.....	.....	10	5	.....	3	3	6	1	1	2-3
1	.....	yes	.....	.....	.....	4	16	7	1	2	7	8	3	all
3	3	yes	1	.....	.....	4	5	10	2	3	28	34	....	all
.....	.....	yes	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	4	1-8
.....	27	yes	.....	.....	.....	.....	.....	.....	.....	132	.....	.....	.....	all
4	1	yes	3	.....	.....	.....	4	8	9	54	.....	.....	.....	all
.....	1	yes	.....	.....	.....	.....	1	2	2	2	6	.....	.....	6-7
.....	.....	yes	.....	.....	1	.....	3	1	.....	1	1	2	3	4-7
.....	1	yes	1	.....	.....	4	9	.....	3	3	1	1	3	3-4
.....	1	yes	.....	8	.....	3	8	.....	.....	6	2	4	.....	all
.....	1	yes	.....	.....	.....	2	2	2	1	1	3	2	2	1-2
.....	.....	yes	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	2	1-6
1	2	yes	1	.....	.....	15	21	4	2	7	3	.....	.....	all
.....	.....	yes	1	.....	.....	2	1	.....	.....	.....	.....	.....	4	1-8
.....	1	yes	1	.....	.....	.....	8	1	2	2	4	5	3	3-4
.....	.....	yes	1	.....	.....	1	5	.....	.....	.....	.....	.....	2	1-2
.....	.....	yes	1	.....	.....	.....	4	1	.....	.....	.....	.....	2	1-4
.....	.....	yes	1	1	.....	.....	1	2	.....	.....	.....	.....	14	5-7
.....	.....	yes	.....	.....	.....	3	3	.....	.....	.....	.....	.....	2	2-5
.....	6	yes	1	1	.....	.....	4	3	2	5	4	7	....	5-6
2	1	yes	.....	3	.....	14	21	7	3	2	3	2	....	all
.....	.....	yes	.....	.....	.....	1	2	1	.....	.....	.....	.....	5	2-5
.....	.....	yes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
2	.....	yes	.....	.....	.....	.....	17	3	4	.....	2	1	3	all
.....	.....	yes	.....	.....	.....	1	4	.....	.....	.....	.....	.....	5	3-7
.....	2	yes	.....	.....	.....	.....	19	4	1	2	2	....	1	6-7
.....	.....	yes	1	4	.....	.....	8	.....	.....	.....	.....	.....	3	2-3

TABLE XXI.

Receipts and disbursements at teachers' institutes for the calendar year 1910.

Counties.	Location.	Date.	Receipts.		Expenditures.			
			County.	State.	Compensation of instructors and local committee.	Expenses of instructors.	Other expenses.	Total.
Totals			$10,219 82	$1,588 79	$8,501 10	$1,759 92	$1,538 45	$11,808 61
Alcona	Harrisville	Mar. 30-April 1	$30 50	$76 17	$68 00	$35 32	$3 35	$106 67
Alger	Munising	Feb. 19	34 75	34 03	52 00	9 78	7 00	68 78
	Marquette	June 27-Aug. 5	25 00			25 00		25 00
Allegan	Allegan	Feb. 20	88 15		62 00	23 15	3 00	88 15
	Saugatuck	Mar. 25-26	109 33		49 00	38 68	21 65	109 33
	Kalamazoo	June 27-Aug. 5	96 50		80 00		16 50	96 50
	Allegan	Oct. 8	27 49		16 00	10 14	1 35	27 49
Alpena	Alpena	Feb. 11	106 10		47 00	35 28	23 82	106 10
Antrim	Bellaire	Feb. 12	61 50	50 68	68 00	37 12	7 06	112 18
Arenac	Standish	Feb. 18	41 50	7 71	27 00	12 76	9 45	49 21
Baraga	L'Anse	Jan. 21	22 00	23 76	32 00	12 76	1 00	45 76
	Marquette	June 27-Aug. 5	15 00		15 00			15 00
	Baraga	Nov. 3-4	20 50	49 66	47 00	20 16	3 00	70 16
Barry	Hastings and county	Jan. 15	60 68	2 83	52 00	7 86	3 65	63 51
	Hastings	Feb. 12		96 42	76 00	20 42		96 42
	Kalamazoo	June 27-Aug. 5	72 00		45 00		27 00	72 00
Bay	Mt. Pleasant	June 27-Aug. 5		26 40	12 00		14 40	26 40
Benzie	Frankfort	Mar. 23-25	75 35	29 18	66 00	24 53	14 00	104 53
Branch	Coldwater	Jan. 29	28 72		17 00	11 72		28 72
	Kalamazoo	June 27-Aug. 5	75 00		75 00			75 00
	Coldwater	Sept. 2-3	34 79		27 00	7 79		34 79
Calhoun	Calhoun Co. (Traveling)	Jan. 10-Jan. 22	149 58		124 00	10 58	15 00	149 58
	Battle Creek	Feb. 26	198 14		179 00	9 64	9 50	198 14
	Kalamazoo	June 27-Aug. 5	83 70		71 00		12 70	83 70
Cass	Cassopolis	Mar. 11-Mar. 12	57 77		32 00	14 77	11 00	57 77
	Kalamazoo	June 27-Aug. 5	105 40		80 00		25 40	105 40
Charlevoix	Boyne City	Feb. 26	58 67		29 00	20 27	9 40	58 67
Cheboygan	Cheboygan	Jan. 29	88 39	21 30	68 00	30 99	10 70	109 69
	Cheboygan	Dec. 10	68 00	29 22	47 00	47 47	2 75	97 22
Clare	Mt. Pleasant	June 27-Aug. 5	45 50	4 10	43 00		6 60	49 60
Clinton	St. Johns	Mar. 18-Mar. 19	61 07		47 00	12 07	2 00	61 07
Delta	Marquette	June 27-Aug. 5	105 20		70 00		35 20	105 20

Parma	1,000 00	1,775 00	200 00	2,975 00	37 83	7 06	44 89	19 22	7 06	26 28	10 06	7 06	17 12	18 95	7 06	26 01
Paw Paw	1,300 00	4,085 00	1,000 00	6,385 00	24 90	13 28	38 18	13 31	13 28	26 59	17 07	13 28	30 35	18 66	13 28	31 94
Peck	550 00	225 00	.....	775 00	.....	.....	.....	13 09	1 47	14 56	4 68	1 47	6 15	8 61	1 47	10 08
Pellston	900 00	3,849 54	.....	4,749 54	38 77	9 45	48 22	13 15	9 45	22 60	12 03	9 45	21 48	16 72	9 45	26 17
Pentwater	1,000 00	3,600 00	450 00	5,050 00	41 90	7 22	49 12	17 63	7 22	24 85	18 56	7 22	25 78	22 54	7 22	29 76
*Perrinton	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Perry	800 00	2,100 00	.....	2,900 00	44 85	7 34	52 19	12 41	7 34	19 75	11 56	7 34	18 90	17 26	7 34	24 60
Petersburg	720 00	1,827 00	.....	2,547 00	22 58	2 51	25 09	9 00	2 51	11 51	9 31	2 51	11 82	12 54	2 51	15 05
Pewamo	804 50	783 50	.....	1,588 00	47 32	16 62	63 94	16 00	16 62	32 62	17 48	16 62	34 10	24 81	16 62	41 43
Pierson	495 00	315 00	.....	810 00	12 07	2 01	14 08	.....	.....	.....	9 26	2 01	11 27	10 80	2 01	12 81
Pigeon	800 00	2,005 00	.....	2,805 00	31 70	3 80	35 60	16 01	3 90	19 91	4 54	3 90	8 44	14 16	3 90	18 06
Pinckney	800 00	1,786 00	.....	2,586 00	30 47	6 43	36 90	25 98	6 43	32 41	13 75	6 43	20 18	22 10	6 43	28 53
Pinconning	900 00	2,425 00	.....	3,325 00	52 00	9 85	61 85	13 66	9 85	23 51	10 10	9 85	19 95	16 70	9 85	26 55
Plainwell	1,200 00	4,125 32	304 00	5,629 32	34 33	6 69	41 02	21 26	6 69	27 95	14 35	6 69	21 04	21 73	6 69	28 42
Plymouth	1,300 00	5,929 50	350 00	7,579 50	25 72	7 83	33 55	19 97	7 83	27 80	15 00	7 83	22 83	19 33	7 83	27 16
Port Austin	800 00	2,250 00	.....	3,050 00	84 07	10 57	94 64	12 60	10 57	23 17	10 76	10 57	21 33	17 83	10 57	28 40
Port Hope	700 00	800 00	.....	1,500 00	53 07	3 23	56 30	15 38	3 23	18 61	12 50	3 23	15 73	21 12	3 23	24 35
Portland	1,300 00	5,883 75	.....	7,183 75	40 78	11 13	51 91	19 50	11 13	30 63	11 77	11 13	22 90	21 44	11 13	32 57
Port Sanilac	540 00	630 00	.....	1,170 00	31 76	3 50	35 26	12 41	3 50	15 91	6 75	3 50	10 25	13 60	3 50	17 10
*Posen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potterville	630 00	1,215 00	.....	1,845 00	37 06	5 89	42 95	10 12	5 89	16 01	11 09	5 89	16 98	14 10	5 89	19 99
Quincy	1,200 00	3,162 50	.....	4,362 50	25 22	96	26 18	13 73	96	14 69	12 31	96	13 27	18 17	96	19 13
Reading	600 00	3,602 50	262 50	4,465 00	26 96	11 46	38 42	13 37	11 46	24 83	12 93	11 46	24 39	18 15	11 46	29 61
*Redford	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
‡Red Jacket	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Reed City	1,250 00	5,770 00	522 50	7,542 50	30 98	5 16	36 14	19 51	5 16	24 67	18 67	5 16	23 83	21 82	5 16	26 98
*Reese	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richland	720 00	1,120 00	.....	1,840 00	49 00	8 76	57 85	18 08	8 76	26 84	11 61	8 76	20 37	24 53	8 76	33 29
Richmond	1,050 00	3,570 50	500 00	5,120 50	47 55	10 21	57 76	16 12	10 21	26 33	12 16	10 21	22 37	19 54	10 21	29 75
River Rouge	2,125 00	16,116 76	1,470 00	19,711 76	97 68	16 27	113 95	29 84	16 27	46 11	16 55	16 27	32 82	24 10	16 27	40 37
Rochester	1,000 00	3,100 00	.....	4,100 00	35 75	4 56	40 31	12 06	4 56	16 62	8 33	4 56	12 89	14 80	4 56	19 36
Rockford	800 00	2,116 00	.....	2,916 00	37 14	5 69	42 83	9 16	5 69	14 85	9 30	5 69	14 99	13 88	5 69	19 57
Rogers	749 97	1,670 00	.....	2,419 97	28 84	5 18	34 02	9 27	5 18	14 45	8 81	5 18	13 99	11 36	5 18	16 54
Romeo	1,500 00	4,930 00	682 50	7,112 50	50 10	7 36	57 46	14 41	7 36	21 77	14 43	7 36	21 79	22 94	7 36	30 30
Roscommon	675 00	1,350 00	.....	2,025 00	67 50	6 65	74 15	8 10	6 65	14 75	10 80	6 65	17 45	17 45	6 65	24 10
Royal Oak	1,000 00	3,250 00	250 00	4,500 00	42 33	8 84	51 17	8 54	8 84	17 38	8 42	8 84	17 26	14 33	8 84	23 17
St. Charles	1,000 00	4,874 00	.....	5,874 00	59 52	5 75	65 27	16 81	5 75	22 56	10 96	5 75	16 71	16 73	5 75	22 48
*St. Clair Heights	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saline	1,050 00	2,800 00	200 00	4,050 00	34 18	6 40	40 58	21 11	6 40	27 51	18 73	6 40	25 13	24 69	6 40	31 09
†Sand Lake	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Not legally graded.
†No report received.

TABLE XXI.—*Concluded.*

Counties.	Location.	Date.	Receipts.		Expenditures.			
			County.	State.	Compensation of instructors and local committee.	Expenses of instructors.	Other expenses.	Total.
Marquette	Marquette	June 27-Aug. 5	$114 00	$11 24	$105 00	$11 24	$9 00	$125 24
Mason	Scottville	April 10-April 15	58 06	100 00	105 00	36 26	16 80	158 06
Mecosta	Big Rapids	July 4-Aug. 12	200 00	.....	200 00	.....	.....	200 00
Menominee	Marquette	June 27-Aug. 5	122 00	.....	94 00	.....	28 00	122 00
	Menominee	Sept. 26	26 80	.....	15 00	11 80	.....	26 80
Midland	Midland	Feb. 19	27 50	89 58	68 00	23 33	25 75	117 08
	Mt. Pleasant	June 27-Aug. 5	25 00	23 14	40 00	.....	8 14	48 14
Missaukee	Lake City	Mar. 11	65 32	.....	47 00	13 78	4 54	65 32
	Missaukee Co. (Traveling)	Dec. 12-Dec. 18	61 17	17 00	57 00	16 17	5 00	78 17
Monroe	Dundee	Mar. 5	24 72	.....	17 00	1 92	5 80	24 72
	Ypsilanti	June 27-Aug. 5	85 92	46 08	105 00	.....	27 00	132 00
	Monroe	Sept. 3	.....	33 30	16 00	11 90	5 40	33 30
Montcalm	Mt. Pleasant	June 27-Aug. 5	75 00	.....	75 00	.....	.....	75 00
Montmorency	Atlanta	Nov. 29-Dec. 2	33 50	95 84	76 00	35 64	17 70	129 34
Muskegon	Ravenna	Mar. 26	14 00	20 81	22 00	6 56	6 25	34 81
	Muskegon	Dec. 1-Dec. 3	162 02	12 75	121 00	47 02	6 75	174 77
Newaygo	Newaygo	April 30	20 63	.....	13 00	6 63	1 00	20 63
	Fremont	Dec. 1-Dec. 2	80 13	.....	57 00	22 63	50	80 13
Oakland	Ypsilanti	June 27-Aug. 5	129 64	.....	105 00	.....	24 64	129 64
Oceana	Shelby	Mar. 24-Mar. 26	23 86	.....	9 00	7 56	7 30	23 86
	Pentwater	Oct. 14-Oct. 15	44 51	.....	21 00	11 10	12 41	44 51
Ontonagon	Marquette	June 27-Aug. 5	.....	9 16	.....	.....	9 16	9 16
Osceola	Reed City	Feb. 12	56 52	.....	44 00	12 52	.....	56 52
	Mt. Pleasant	June 27-Aug. 5	89 48	.....	80 00	.....	9 48	89 48
Saginaw	Chesaning	Jan. 7	33 19	.....	17 00	5 41	10 78	33 19
	Bridgeport	Jan. 15	33 47	.....	17 00	4 16	12 31	33 47
	Saginaw	Feb. 25	194 12	.....	152 00	29 32	12 80	194 12
	Mt. Pleasant	June 27-Aug. 5	.....	18 03	9 00	.....	9 03	18 03
	Chesaning	Oct. 7-Oct. 8	70 19	.....	41 00	14 11	15 08	70 19
Oscoda	Mio	Jan. 7	69 11	11 39	50 00	17 05	13 45	80 50
Ottawa	Nunica	Feb. 5	24 00	.....	17 00	4 34	2 66	24 00
	Holland	Mar. 3-Mar. 4	79 95	.....	49 00	18 86	12 09	79 95
	Grand Haven	Mar. 9-Mar. 12	83 37	.....	49 00	26 12	8 25	83 37
	Berlin and Holland	Sept. 8-Sept. 9	43 31	.....	28 00	5 16	10 15	43 31
Presque Isle	Rogers City	Jan. 28	41 00	98 00	80 00	46 50	12 50	139 00
St. Clair	Port Huron	Feb. 19	124 71	.....	77 00	38 21	9 50	124 71
	Ypsilanti	June 27-Aug. 5	.....	61 50	30 00	.....	31 50	61 50

St. Joseph	Sturgis	Mar. 11-Mar. 12	78 12	.....	49 00	18 97	10 15	78 12
	Kalamazoo	June 27-Aug. 5	60 50	.....	30 00	.....	30 50	60 50
Schoolcraft	Marquette	June 27-Aug. 5	.....	44 24	30 00	.....	14 24	44 24
	Manistique	Dec. 8-Dec. 9	94 00	33 82	67 00	50 07	10 75	127 82
Shiawassee	Mt. Pleasant	June 27-Aug. 5	.....	5 88	3 00	.....	2 88	5 88
	Owosso	Oct. 3	30 64	.....	17 00	3 40	10 24	30 64
Tuscola	Caro	Feb. 19	87 97	.....	42 00	27 22	18 75	87 97
Van Buren	Kalamazoo	June 27-Aug. 5	75 00	.....	75 00	.....	.....	75 00
	Bloomingdale	Dec. 12-Dec. 13	44 26	.....	29 00	5 76	9 50	44 26
	Hartford	Dec. 14-Dec. 15	42 65	.....	29 00	7 20	6 45	42 65
Washtenaw	Chelsea	Jan. 15	38 50	.....	31 00	2 65	4 85	38 50
	Ann Arbor	Feb. 25	27 35	60 00	87 00	.....	35	87 35
	Ypsilanti	June 27-Aug. 5	112 00	.....	105 00	.....	7 00	112 00
	Saline	Sept. 2	5 10	10 80	13 00	80	2 10	15 90
	Ann Arbor	Sept. 3	13 00	.....	12 00	.....	1 00	13 00
	Dexter	Sept. 10	5 23	11 20	13 00	1 20	2 23	16 43
Wayne	Wayne Co. (Traveling)	Feb. 12	107 29	.....	68 00	19 82	19 47	107 29
	Detroit	Feb. 17	165 75	.....	153 00	12 75	.....	165 75
	Detroit	Feb. 26	152 20	.....	143 60	8 60	.....	152 20
	Detroit	Feb. 27	241 75	.....	218 50	23 25	.....	241 75
	Wayne	Mar. 7	99 26	.....	64 00	22 00	13 26	99 26
	Ypsilanti	June 27-Aug. 5	163 92	.....	130 00	.....	33 92	163 92
	Detroit	Oct. 22	190 00	.....	183 00	.....	7 00	190 00
	Plymouth	Nov. 2	64 27	.....	32 00	13 20	19 07	64 27
	Detroit	Nov. 17-Nov. 19	198 05	.....	193 00	.....	5 05	198 05
Wexford	Cadillac	Mar. 18-Mar. 19	105 28	.....	52 00	32 23	21 05	105 28
	Mt. Pleasant	June 27-Aug. 5	.....	24 16	12 00	.....	12 16	24 16

TABLE XXII.

Local committees, conductors and instructors at teachers' institutes for the calendar year 1910.

Counties.	Term.	Local committees.	Conductors.	Instructors.	Instructors.	Instructors.
Alcona	3 days	W. H. Sanborn	C. H. Gurney	C. H. Gurney	E. C. Rowe.	
Alger	1 day	Orville LaBounty	James H. Kaye	James H. Kaye	Lilias S. Bill.	
Alger (see Marquette)	30 days	Orville LaBounty	James H. Kaye	E. L. Parmenter.		
Allegan	1 day	Ira G. Thorpe	L. H. Jones	L. H. Jones	John O. Reed.	
	2 days	Ira G. Thorpe	S. B. Laird	S. B. Laird	Lucy A. Sloan.	
	30 days	Ira G. Thorpe	D. B. Waldo	T. P. Hickey.		
	1 day	Ira G. Thorpe	R. D. Calkins	R. D. Calkins		
Alpena	1 day	Harry V. Knight	R. Clyde Ford	R. Clyde Ford	R. D. Calkins.	
Antrim	1 day	H. M. Coldren	S. B. Laird	S. B. Laird	Mary E. Lowe.	
Arenac	1 day	Geo. H. Glasure	R. Clyde Ford	R. Clyde Ford.		
Baraga	1 day	S. O. Clinton	H. E. Krats	H. E. Krats	Lilias S. Bill.	
	30 days	S. O. Clinton	James H. Kaye		J. V. Brennan.	
	2 days	S. O. Clinton	James H. Kaye	James H. Kaye	Abbie Louise Day.	
Barry	1 day	E. J. Edger	J. F. Thomas	J. F. Thomas.		
	1 day	E. J. Edger	E. J. Edger	C. T. Grawn	Myron A. Cobb.	
	30 days	E. J. Edger	D. B. Waldo	F. S. Huff.		
Bay	30 days	John B. Laing	C. T. Grawn.			
Benzie	3 days	O. L. Bristol	W. N. Ferris	W. N. Ferris	I. A. Beddow.	
Branch	1 day	James Swain	C. T. Grawn	C. T. Grawn.		
	30 days	James Swain	D. B. Waldo	C. H. Carrick.		
	2 days	James Swain	S. B. Laird	S. B. Laird.		
Calhoun	10 days	F. D. Miller	Henry R. Pattengill	Henry R. Pattengill.		
	1 day	F. D. Miller	L. H. Jones	L. H. Jones	S. H. Clark.	
	30 days	F. D. Miller	D. B. Waldo	T. P. Hickey.		
Cass	2 days	W. H. C. Hale	R. Clyde Ford	R. Clyde Ford	W. E. Conkling.	
	30 days	W. H. C. Hale	D. B. Waldo	T. P. Hickey.		
Charlevoix	1 day	J. H. Milford	S. B. Laird	S. B. Laird.		
Cheboygan	1 day	E. W. Baker	H. R. Pattingell	H. R. Pattengill	W. H. French.	
	1 day	E. W. Baker	W. D. Henderson	W. D. Henderson	Emelia M. Goldsworthy.	
Clare	30 days	E. G. Welch	C. T. Grawn	E. T. Cameron.		
Clinton	2 days	Theo. H. Townsend	S. B. Laird	S. B. Laird	Clarence E. Holmes.	
Delta	30 days	P. R. Legg	James H. Kaye	J. V. Brennan.		
Dickinson	30 days	E. L. Parmenter	James H. Kaye	E. L. Parmenter.		
Eaton	1 day	Cynthia A. Green	Clarence E. Holmes	Clarence E. Holmes	Lucy A. Sloan.	
Genesee	1 day	H. E. Potter	Ernest Burnham	Ernest Burnham	Albert E. Winship	Margaret E. Wise.
	1 day	H. E. Potter	W. H. French	W. H. French.		
	1 day	H. E. Potter	C. T. Grawn	C. T. Grawn	O. G. Frederick.	
Gladwin	1 day	Floyd E. Armstrong	C. S. Larselere	C. S. Larselere	Lois B. Wilson.	
	30 days	Floyd E. Armstrong	C. T. Grawn	E. T. Cameron.		

Gogebic	30 days	Laura Bowden	James H. Kaye.			
	1 day	Laura Bowden	W. D. Henderson	W. D. Henderson	F. D. Davis.	
Grand Traverse	1 day	Geo. L. Crisp	C. O. Hoyt	C. O. Hoyt	Irene Louise Getty.	
Gratiot	1 day	C. F. Pike	C. F. Pike	E. B. Bryan.		
	1 day	C. F. Pike	C. F. Pike	C. S. Larzelere.		
	30 days	C. F. Pike	C. T. Grawn	E. T. Cameron.		
Hillsdale	1 day	Harry McClave	H. R. Pattengill	H. R. Pattengill.		
	1 day	Harry McClave	Harry McClave	C. H. Gurney.		
	2 days	Harry McClave	C. E. Holmes	C. E. Holmes	C. S. Larzelere.	
	1 day	M. W. Hensel C. H. Gurney (a)	Harry McClave	Ernest R. O'Neal	Harry McClave.	
Houghton	2 days	F. M. Bradshaw Wm. Bath. (a)	W. N. Ferris	W. N. Ferris	S. H. Clark	Albert E. Winship.
Huron	4 days	C. F. Hey	W. N. Ferris	W. N. Ferris	L. H. Jones	E. G. Lancaster.
Ingham	30 days	F. E. Searl	L. H. Jones	W. B. Arbaugh	E. E. Gallup	Thos. M. Sattler.
Ionia	1 day	Harvey H. Lowrey	Harvey H. Lowrey	Dimon H. Roberts.		
	1 day	Harvey H. Lowrey	L. H. Jones	L. H. Jones	C. O. Hoyt.	
	1 day	Harvey H. Lowrey	Harvey H. Lowrey	Ernest Burnham.		
Iron	30 days	John F. Mason	James H. Kaye	J. V. Brennan.		
Isabella	1 day	E. T. Cameron	E. T. Cameron	John O. Reed.		
	30 days	E. T. Cameron	C. T. Grawn	J. W. Kelder.		
Jackson	5 days	Thos. M. Sattler	Thos. M. Sattler	Delos Fall	Chas. H. Gurney	L. H. Wood.
	5 days	Thos. M. Sattler	Thos. M. Sattler	John C. Ketcham	Margaret E. Wise.	
	30 days	Thos. M. Sattler	L. H. Jones	H. C. Cooley.		
Kalamazoo	1 day	Sheridan Mapes	Wm. McCracken	Wm. McCracken	Thos. H. Briggs	May Massee.
	30 days	Sheridan Mapes	D. B. Waldo	F. S. Huff.		
Kent	1 day	A. M. Freeland	A. M. Freeland	John O. Reed.		
	8 days	A. M. Freeland	A. M. Freeland	John C. Ketcham.		
	1 day	A. M. Freeland	A. M. Freeland	G. Masselink.		
	1 day	A. M. Freeland	A. M. Freeland	John Ketcham	G. Masselink.	
	1 day	A. M. Freeland	A. M. Freeland	D. B. Waldo.		
	1 day	A. M. Freeland	A. M. Freeland	E. J. McEwan.		
	1 day	A. M. Freeland	W. A. Greeson	Henry S. Curtis.		
	1 day	A. M. Freeland	L. H. Jones	L. H. Jones.		
Keweenaw	30 days	F. M. Bradsaw	James H. Kaye.			
Lake	3 days	Edwin G. Johnson	C. S. Larzelere	C. S. Larzelere	Irene Louise Getty.	
Lapeer	1 day	C. H. Naylor	E. G. Lancaster	E. G. Lancaster.		
	10 days	C. H. Naylor	C. H. Naylor	C. W. Shipman	C. H. Naylor.	
Lenawee	30 days	M. W. Hensel	L. H. Jones	W. A. Parker.		
	1 day	M. W. Hensel C. H. Gurney. (a)	Harry McClave	Ernest R. O'Neal	Adella R. Jackson.	
Livingston	2 days	Wm. Grocinger	C. O. Hoyt	C. O. Hoyt.		
	30 days	Wm. Grocinger	L. H. Jones	L. A. McDermid.		
Luce	2 days	Eva E. Beurmann	E. R. Downing	E. R. Downing	Mrs. M. B. Holmes.	
Mackinac	30 days	E. J. LaChance	James H. Kaye.			
Macomb	1 day	O. D. Thompson	S. B. Laird	S. B. Laird.		
	30 days	O. D. Thompson	L. H. Jones.			

(a) Combination institute.

TABLE XXII.—*Concluded.*

Counties.	Term.	Local committees.	Conductors.	Instructors.	Instructors.	Instructors.
Manistee	1 day	H. J. Leighton	J. C. Ketcham	J. C. Ketcham.		
Marquette	30 days	A. E. Sterne	James H. Kaye	E. L. Parmenter	J. V. Brennan.	
Mason	5 days	C. A. Rinehart	C. O. Hoyt	C. O. Hoyt	Ernest Burnham.	
Mecosta	25 days	Bert J. Ford	W. N. Ferris	W. N. Ferris.		
Menominee	30 days	Jesse Hubbard	James H. Kaye	E. L. Parmenter.		
	1 day	Jesse Hubbard	E. R. Downing	E. R. Downing.		
Midland	1 day	John Mustard	Dimon H. Roberts	Dimon H. Roberts	Margaret E. Wise.	
	30 days	John Mustard	C. T. Grawn	E. T. Cameron.		
Missaukee	1 day	Ezra S. Hall	I. B. Gilbert	I. B. Gilbert	M. R. Keyworth	L. A. Sloan.
	5 days	J. O. Zuck	M. O. Osborne	M. O. Osborne.		
Monroe	1 day	James J. Kelley	C. O. Hoyt	C. O. Hoyt.		
	30 days	James J. Kelley	L. H. Jones	E. E. Gallup.		
	1 day	James J. Kelley	Chas. C. Miller	Chas. C. Miller.		
Montcalm	30 days	Eugene Straight	C. T. Grawn	J. W. Kelder.		
Montmorency	4 days	B. J. Watters	G. Masselink	G. Masselink	I. A. Beddow.	
Muskegon	1 day	Nellie B. Chisholm	G. Masselink	G. Masselink	Marguerite Lux.	
	3 days	Nellie B. Chisholm	F. A. Barbour	F. A. Barbour	John W. Cook	R. D. Calkins.
Newaygo	1 day	Isabelle M. Becker	Isabelle M. Becker	Ernest Burnham.		
	2 days	Isabelle M. Becker	W. D. Henderson	W. D. Henderson	D. B. Waldo.	
Oakland	30 days	A. L. Craft	L. H. Jones	Thos. M. Sattler.		
Oceana	3 days	Marguerite Lux	Marguerite Lux.			
	2 days	Marguerite Lux	Mark Jefferson	Mark Jefferson.		
Ontonagon	30 days	A. C. Adair	James H. Kaye.			
Osceola	1 day	Geo. F. Roxburgh	Geo. F. Roxburgh	Lucy A. Sloan	F. S. Goodrich.	
	30 days	Geo. F. Roxburgh	C. T. Grawn	E. T. Cameron.		
Oscoda	1 day	Georgia L. Fowler	H. C. Lott	H. C. Lott.		
Ottawa	1 day	M. M. DeGraff	D. B. Waldo	D. B. Waldo.		
	2 days	M. M. DeGraff	F. A. Barbour	F. A. Barbour	E. C. Rowe.	
	4 days	M. M. DeGraff	L. H. Jones	L. H. Jones	H. C. Lott.	
	2 days	M. M. DeGraff	M. M. DeGraff	John Phelan.		
Presque Isle	1 day	M. H. Nester	D. B. Waldo	D. B. Waldo	Minnie I. Termaat.	
Saginaw	1 day	Burton S. Tefft	W. D. Henderson	W. D. Henderson.		
	1 day	Burton S. Tefft	John C. Ketcham	John C. Ketcham.		
	1 day	Burton S. Tefft	C. O. Hoyt	C. O. Hoyt	Lida B. Echart.	
	30 days	Burton S. Tefft	C. T. Grawn.			
	2 days	Burton S. Tefft	F. A. Barbour	F. A. Barbour	C. S. Larselere	Preston W. Search.
St. Clair	1 day	E. T. Blackney	C. O. Hoyt	C. O. Hoyt	Charles McKenny.	
	30 days	E. T. Blackney	L. H. Jones.			
St. Joseph	2 days	L. E. Miller	D. B. Waldo	D. B. Waldo	R. D. Calkins.	
	30 days	L. E. Miller	D. B. Waldo.			
Schoolcraft	30 days	W. T. S. Cornell	James H. Kaye.			
	2 days	W. T. S. Cornell	S. B. Laird	S. B. Laird	C. S. Larselere.	

Shiawassee	30 days	H. E. Slocum	C. T. Grawn.			
	1 day	H. E. Slocum	C. S. Larselere	C. S. Larselere.		
Tuscola	1 day	H. P. Bush	D. B. Waldo	D. B. Waldo	S. S. Purdy	Lois Wilson.
Van Buren	30 days	V. R. Hungerford	D. B. Waldo	C. H. Carrick.		
	2 days	V. R. Hungerford	W. H. French	W. H. French.		
	2 days	V. R. Hungerford	W. J. McKone	W. J. McKone.		
Washtenaw	1 day	Evan Essery	Evan Essery	F. A. Barbour.		
	1 day	Evan Essery	Evan Essery	F. M. McMurry	Mrs. G. T. Thompson.	
	30 days	Evan Essery	L. H. Jones	W. B. Arbaugh.		
	1 day	Evan Essery	Evan Essery	J. S. Lathers.		
	1 day	Evan Essery	Evan Essery	R. D. Hollister.		
	1 day	Evan Essery	Evan Essery	J. S. Lathers.		
Wayne	1 day	E. W. Yost	E. W. Yost	H. R. Pattengill.		
	1 day	W. C. Martindale	W. C. Martindale	Edward Howard Griggs.		
	1 day	W. C. Martindale	W. C. Martindale	J. Paul Goode.		
	1 day	W. C. Martindale	W. C. Martindale	S. H. Clark.		
	1 day	E. W. Yost	E. W. Yost	S. Y. Gillan	Estelle Downing.	
	30 days	E. W. Yost	L. H. Jones	Alice P. Kimball.		
	1 day	W. C. Martindale	W. C. Martindale	Henry Sussalls.		
	1 day	W. N. Isbell	E. W. Yost	R. D. Calkins	Thos. C. Blaisdell.	
	3 days	E. W. Yost	W. C. Martindale	F. M. McMurry.		
Wexford	2 days	W. H. Faunce	John O. Reed	John O. Reed	Margaret E. Wise.	
	30 days	W. H. Faunce	C. T. Grawn.			

TABLE XXIII.

Enrollment of teachers' institutes for calendar year 1910.

Counties.	Number of teachers required to supply schools.	Number enrolled.			Kinds and grades of certificates held by members.										Number without experience in teaching.	Number having received normal instruction.	Average attendance each half day.	Number of legally qualified teachers in the county.	Percentage of teachers in county attending institute.
		Men.	Women.	Total.	State.	University.	Normal.	First.	Second.	Third.	Special.	College.	City.	County normal.					
Totals	16,872	1,138	6,253	7,690	71	60	785	133	1,701	1,153	67	51	205	612	851	1,349	4,724	19,113	3,490
Alcona	45	10	26	36	1	.....	1	.....	23	7	2	.....	.....	.....	1	4	68	48	75
Alger	58	10	44	54	.....	.....	19	1	21	2	5	.....	.....	.....	2	44	.....	57	95
		†																	
		31	141	172	.....	2	31	4	65	29	1	4	.....	24	12	87	165	.....	58
Allegan	278	51	101	152	.....	.....	11	.....	38	10	3	.....	.....	11	79	37	106	286	26
		19	82	101	.....	2	15	2	39	8	3	.....	.....	22	10	44	101		35
		†																	
Alpena	129	4	127	131	.....	.....	.....	.....	22	35	.....	.....	.....	.....	65	.....	.....	138	48
Antrim	138	14	78	92	1	3	28	.....	24	10	1	.....	.....	22	2	42	70	141	64
Arenac	70	17	56	73	2	.....	4	2	15	7	2	.....	.....	21	.....	.....	72	70	88
		11	21	32	6	2	6	0	6	8	2	.....	.....	.....	3	23	32	42	90
Baraga	41	13	38	51	1	1	13	.....	6	13	5	1	.....	.....	11	27	48		80
		†																	
		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	200		95
Barry	187	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	243	.....
		†																	
Bay	304	17	101	128	.....	.....	12	1	30	15	2	.....	10	4	60	.....	.....	358	21
Bensie	88	28	91	119	13	.....	4	2	27	22	1	2	.....	4	44	44	103	120	63
*Berrien	311	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	495	.....
		†																	
Branch	189	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	234	56
		38	97	135	2	1	28	1	30	32	2	1	.....	38	15	130	150		
Calhoun	427	35	280	315	4	20	38	5	98	57	2	2	40	24	13	140	250	425	74
		†																	
		†																	
Cass	165	19	97	116	1	3	16	1	30	21	1	5	10	21	25	51	104	164	56
		†																	
Charlevoix	152	15	81	96	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	96	212	46
	127																		
Cheboygan	154	12	108	120	2	.....	25	2	19	4	1	1	12	38	16	39	117	168	71
*Chippewa	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	160	.....
Clare	92	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	96	.....

Clinton	181	24	163	187	.....	1	32	2	40	29	4	2	.....	32	55	.....	185	190	70
*Crawford	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42	.....
Delta	187	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	175	.....
Dickinson	159	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	155	.....
Eaton	232	16	97	113	1	1	19	.....	26	26	.....	6	3	18	9	34	98	256	40
*Emmet	136	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	139	.....
Genesee	315	30	270	300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	.....	260	359	75
		11	95	106	3	.....	3	2	35	28	.....	.....	.....	20	10	.....	.....		28
		12	143	155	.....	.....	34	5	24	8	1	.....	1	7	.....	46	155		31
Gladwin	67	14	50	.....	.....	2	.....	1	38	20	2	.....	.....	.....	.....	.....	62	70	95
Gogebic	165	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	170	.....
Grand Traverse	149	9	59	68	.....	.....	3	.....	44	14	1	.....	.....	3	3	19	66	180	38
Gratiot	195	29	111	140	2	2	34	.....	34	12	4	4	6	20	8	72	.....	311	43
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Hillsdale	254	39	129	168	2	.....	4	2	69	84	1	.....	.....	.....	59	43	166	313	40
Hillsdale with Lenawee		53	221	274	3	2	23	3	92	81	.....	.....	.....	10	.....	.....	.....		41
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Houghton	561	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	672	.....
Huron	201	48	131	179	3	.....	23	4	74	45	1	1	4	4	23	47	145	229	70
Ingham	318	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	356	.....
Ionia	240	8	11	19	.....	.....	3	1	7	4	1	.....	.....	3	.....	8	19	334	6
	70	27	169	196	3	.....	25	3	58	42	.....	2	9	23	31	67	192		50
		11	54	66	.....	.....	8	.....	12	19	.....	.....	2	11	14	18	66		15
*Iosco	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	84	.....
Iron	107	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	110	.....
Isabella	139	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	163	.....
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Jackson	306	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	340	.....
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Kalamazoo	346	34	108	142	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	390	36
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
*Kalkaska	69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	85	.....
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Kent	787	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	935	.....
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Keweenaw	45	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	44	.....
Lake	56	7	43	50	.....	.....	.....	1	32	14	1	.....	.....	2	8	6	.....	55	94
Lapeer	175	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	191	27
	75	4	47	51	.....	.....	.....	.....	10	8	.....	.....	.....	10	21	3	38		
*Leelanau	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	104	.....
Lenawee	307	†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	360	.....
Lenawee with Hillsdale		†	see	Hillsdale	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		41

*No institute held.
†No report received.

TABLE XXIII.—*Concluded.*

Counties.	Number of teachers required to supply schools.	Number enrolled.			Kinds and grades of certificates held by members.										Number without experience in teaching.	Number having received normal instruction.	Average attendance each half day.	Number of legally qualified teachers in the county.	Percentage of teachers in county attending institute.
		Men.	Women.	Total.	State.	University.	Normal.	First.	Second.	Third.	Special.	College.	City.	County normal.					
Livingston	169	13	160	173	2	.....	12	.....	36	72	.....	.....	.....	.....	.....	.....	.....	180	70
		†																	
Luce	35	5	33	38	4	.....	5	.....	7	7	.....	2	.....	1	12	10	37	33	99
Mackinac	73	†																79	.....
Macomb	190	20	79	99	.....	1	32	2	28	10	.....	.....	.....	24	1	.....	93	215	45
		†																	
Manistee	169	†																269	.....
Marquette	301	†																364	.....
Mason	142	14	116	130	2	.....	23	.....	23	13	3	.....	.....	20	35	.....	.....	141	66
Mecosta	152	†																200	.....
Menominee	176	†																200	.....
		†																	
Midland	111	23	105	128	.....	.....	21	.....	29	17	3	1	2	28	27	30	88	153	65
Missaukee	93	17	91	108	.....	.....	8	1	28	21	.....	.....	.....	23	.....	.....	.....	110	53
		†																	
		19	98	117	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	222	52
Monroe	189	†																	
		22	114	136	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		60
Montcalm	220	†																271	.....
Montmorency	40	14	36	50	.....	.....	2	2	15	12	.....	.....	.....	.....	19	7	59	40	100
Muskegon	270	6	70	76	.....	.....	4	.....	47	13	.....	.....	.....	1	11	13	76	272	24
		23	225	248	1	6	19	2	51	30	2	2	93	6	11	39	179		87
Newaygo	162	20	72	92	4	.....	11	1	22	28	1	2	.....	13	10	28	92	263	31
		19	111	130	.....	.....	11	1	26	29	2	1	.....	32	25	23	124		40
Oakland	339	†																420	.....
Oceana	147	†																193	.....
		†																	
*Ogemaw	71	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	75	.....
Ontonagon	91	†																91	.....
Osceola	145	†																179	.....
		†																	
Oscoda	28	8	23	31	.....	.....	.....	.....	2	10	1	.....	.....	1	9	1	29	29	76
*Otsego	57	†																65	.....
Ottawa	269	†																201	.....
		†																	
		†																	

Presque Isle	70	30	46	66			17	2	15	16	3			1	12	31	50	72	75
*Roscommon	80																	31	
Saginaw	455	5	40	45			2		10	6	2			2				573	8
		8	40	48				3	20	6				5					8
		†																	
		37	388	425															74
		4	39	43															7
St. Clair	309	†																282	
St. Joseph	217	†																230	
*Sanilac	215	†																256	
Schoolcraft	68	†																70	
		5	59	64		4	22	2	11	8		2	7	1	7	33	60		91
Shiawassee	226	†																239	
		15	130	145	1	3	17	1	51	22			6	36	3	59	127		60
Tuscola	226	10	80	90	1	2	6	3	36	22		5		14	40		130	228	40
Van Buren	251	†																	
		37	133	170	3		42	64	26			4		11				320	50
		†																	
		2	44	46													46		13
		†																	
		†		350													400		
Washtenaw	331	†																342	100
		†																	
		9	135	144	1		19	1	63	50		1							42
		†																	
		25	162	187	2	2	50	2	62	32									10
		†																	
		†																	
		†																	
Wayne	1,852	†																1,865	
		†																	
		†																	
		†																	
		†																	
		10	38	48			12	1	5	15	1								3
Wexford	146	†																161	
		8	116	126															61

*No institute held.
†No report received.

TABLE XXIV.

County boards of school examiners for 1909-1910.

County.	Name.	Address.	Occupation.
Alcona	W. H. Sanborn	Harrisville	Teacher.
	H. Dehnke	Mud Lake	Teacher.
	Geo. Emreck	Harrisville	Teacher.
Alger	Orvice La Bounty	Onota	Merchant.
	E. J. Lederle	Grand Marais	Teacher.
	G. H. Barr	Trenary	Teacher.
Allegan	Ira G. Thorpe	Allegan	Teacher.
	C. Lloyd Goodrich	Ganges	Teacher.
	M. LeRoy Fear	Hopkins	Teacher.
Alpena	H. V. Knight	Alpena	Teacher.
	E. L. Little	Alpena	Teacher.
	Mrs. Minnie F. . urner	Flanders	Teacher.
Antrim	H. M. Coldren	Bellaire	Teacher.
	C. L. Taisey	Bellaire	Teacher.
	Geo. E. Cabanis	Bellaire	Farmer.
Arenac	G. H. Glasure	Standish	Teacher.
	E. N. Durfee	Standish	Teacher.
	O. L. Poulson	Turner	Teacher.
Baraga	S. O. Clinton	Baraga	Teacher.
	Kate Curry	L'Anse	Teacher.
	J. I. Harrington	Baraga	Teacher.
Barry	E. J. Edger	Hastings	Teacher.
	Chas. Appleton	Nashville	Teacher.
	H. H. Wertman	Hickory Corners	Teacher.
Bay	John B. Laing	Bay City	Teacher.
	James Colter	Pinconning	Teacher.
	Cecil Hughes	Essexville	Teacher.
Benzie	O. L. Bristol	Benzonia	Teacher.
	T. H. Fewloes	Honor	Teacher.
	Lillian Jaquith	Benzonia	Teacher.
Berrien	G. N. Otwell	St. Joseph	.....
	J. S. Adams	Benton Harbor	Teacher.
	B. F. Eggert	Three Oaks	Teacher.
Branch	James Swain	Coldwater	Teacher.
	J. B. Gower	Union City	Teacher.
	T. C. Bishop	Girard	Teacher.
Calhoun	Frank D. Miller	Marshall	Teacher.
	Maude Blair	Homer	Teacher.
	Josiah Phelps	Marshall	Teacher.
Cass	Wm. H. C. Hale	Cassopolis	Teacher.
	H. S. East	Vandalia	Merchant.
	John Finley	Dowagiac	Teacher.
Charlevoix	J. H. Milford	E. Jordan	Teacher.
	S. A. Butler	Boyne City	Teacher.
	I. M. De Voe	Charlevoix	Teacher.
Cheboygan	E. W. Baker	Cheboygan	.....
	W. L. Coffey	Tower	Teacher.
	E. Mae Cunningham	Wolverine	Teacher.
Chippewa	T. R. Easterday	Sault Ste. Marie	Minister.
	T. B. Aldrich	Brimley	Teacher.
	E. T. Brown	Rudyard	Teacher.
Clare	E. G. Welch	Clare	.....
	Peter A. Oman	Lake	Teacher.
	C. H. Jones	Temple	Teacher.
Clinton	T. H. Townsend	St. Johns	Commissioner
	B. F. Duffy	Bath	Principal.
	Vernon Sawyer	Maple Rapids	Principal.
Crawford	J. F. Bradley	Grayling	Teacher.
	C. A. Whitney	Grayling	Teacher.
	Elizabeth Cobb	Frederic	Teacher.
Delta	P. R. Legg	Gladstone	Commissioner.
	Jos. H. McDonald	Rapid River	Teacher.
	James Kenny	Schaffer	Teacher.
Dickinson	E. L. Parmenter	Iron Mountain	Co. com'r schools.
	L. E. Amidon	Iron Mountain	Supt. city schools.
	G. G. Malcolm	Norway	Supt. city schools.

TABLE XXIV.—*Continued.*

County.	Name.	Address.	Occupation.
Eaton	Cynthia A. Green	Charlotte	Teacher.
	Prof. Geo. Knapp	Olivet	Teacher.
	C. S. Severance	Potterville	Teacher.
Emmet	H. S. Babcock	Harbor Springs	Editor.
	A. A. Keiser	Bliss	Teacher.
	E. C. Hartwell	Petoskey	Teacher.
Genesee	H. E. Potter	Flint	
	Wm. S. Goudy	Flint	Teacher.
	Lydia Johnson	Flint	Teacher.
Gladwin	Floyd Armstrong	Gladwin	
	C. J. Barnum	Beaverton	Teacher.
	Charlotte Ferrell	Alger, R. F. D.	Teacher.
Gogebic	Laura Bowden	Ironwood	Teacher.
	L. W. Brice	Wakefield	Supt. of schools.
	M. J. Walsh	Bessemer	Supt. of schools.
Grand Traverse	Geo. L. Crisp	Traverse City	Teacher.
	E. O. Ladd	Old Mission	Agriculturist.
	A. H. Clark	Kingsley	Teacher.
Gratiot	C. F. Pike	Ithaca	Teacher.
	H. J. Rose	Ashley	Teacher.
	M. E. Hull	St. Louis	Teacher.
Hillsdale	Harry McClave	Hillsdale	Teacher.
	C. L. Chamberlain	Osseo	Teacher.
	Frank Aldrich	Pittaford	Teacher.
Houghton	William Bath	Houghton	Accountant
	A. E. Peterman	Calumet	Lawyer.
	F. A. Jeffers	Painesdale	Teacher.
Huron	C. F. Hey	Bad Axe	Teacher.
	B. F. Plumley	Kinde	Teacher.
	W. H. Sparling	Grindstone	Teacher.
Ingham	F. E. Searl	Mason	Teacher.
	Rose Grettenberger	Okemos	Teacher.
	Clarence Vliet	Leslie	Teacher.
Ionia	Harvey H. Lowrey	Ionia	Teacher.
	J. Calvin Linebaugh	Portland	Teacher.
	George H. Steadman	Lyon, No. 28	Teacher.
Iosco	J. A. Campbell	Whittemore	Teacher.
	Mina C. Hamilton	East Tawas	Teacher.
	C. G. Stratton	Au Sable	Teacher.
Iron	John F. Mason	Mansfield	Bookkeeper.
	H. M. Armstrong	Stanbaugh	Teacher.
	W. D. Hill	Crystal Falls	Teacher.
Isabella	E. T. Cameron	Mt. Pleasant	Teacher.
	F. E. Morrison	Loomis	Teacher.
	Geo. Crawford	Mt. Pleasant	Teacher.
Jackson	Thos. M. Sattler	Jackson	Teacher.
	P. J. O'Leary	Grass Lake	Teacher.
	J. Ray Fisher	Jackson	Teacher.
Kalamazoo	Sheridan Mapes	Kalamazoo	Teacher.
	C. R. Hanes	Schoolcraft	Teacher.
	A. M. Nutten	Comstock	Teacher.
Kalkaska	Irene Louise Getty	Kalkaska	Commissioner.
	E. N. Phelps	Darragh	Farmer, teacher.
	D. A. Barber	So. Boardman	Teacher.
Kent	A. M. Freeland	Grand Rapids	Teacher.
	Robert A. Compton	Sand Lake	Teacher.
	H. D. MacNaughton	Rockford	Teacher.
Keweenaw	F. M. Bradshaw	Gay	Teacher.
	H. D. Winter	Mohawk	Teacher.
	Clarence Chrysler	Copper Falls	Teacher.
Lake	Edwin G. Johnson	Luther	Insurance.
	W. M. McCumsey	Luther	Teacher.
	Mr. Ora Webster	Baldwin	Teacher.
Lapeer	C. H. Naylor	Lapeer	Teacher.
	R. V. Langdon	North Branch	Lawyer.
	Fred Broesamle	Almont	Teacher.

TABLE XXIV.

County boards of school examiners for 1909-1910.

County.	Name.	Address.	Occupation.
Alcona	W. H. Sanborn	Harrisville	Teacher.
	H. Dehnke	Mud Lake	Teacher.
	Geo. Emreck	Harrisville	Teacher.
Alger	Orvice La Bounty	Onota	Merchant.
	E. J. Lederle	Grand Marais	Teacher.
	G. H. Barr	Trenary	Teacher.
Allegan	Ira G. Thorpe	Allegan	Teacher.
	C. Lloyd Goodrich	Ganges	Teacher.
	M. LeRoy Fear	Hopkins	Teacher.
Alpena	H. V. Knight	Alpena	Teacher.
	E. L. Little	Alpena	Teacher.
	Mrs. Minnie F. Turner	Flanders	Teacher.
Antrim	H. M. Coldren	Bellaire	Teacher.
	C. L. Taisey	Bellaire	Teacher.
	Geo. E. Cabanis	Bellaire	Farmer.
Arenac	G. H. Glasure	Standish	Teacher.
	E. N. Durfee	Standish	Teacher.
	O. L. Poulson	Turner	Teacher.
Baraga	S. O. Clinton	Baraga	Teacher.
	Kate Curry	L'Anse	Teacher.
	J. I. Harrington	Baraga	Teacher.
Barry	E. J. Edger	Hastings	Teacher.
	Chas. Appleton	Nashville	Teacher.
	H. H. Wertman	Hickory Corners	Teacher.
Bay	John B. Laing	Bay City	Teacher.
	James Colter	Pinconning	Teacher.
	Cecil Hughes	Essexville	Teacher.
Benzie	O. L. Bristol	Benzonia	Teacher.
	T. H. Fewloes	Honor	Teacher.
	Lillian Jaquith	Benzonia	Teacher.
Berrien	G. N. Otwell	St. Joseph	.....
	J. S. Adams	Benton Harbor	Teacher.
	B. F. Eggert	Three Oaks	Teacher.
Branch	James Swain	Coldwater	Teacher.
	J. B. Gower	Union City	Teacher.
	T. C. Bishop	Girard	Teacher.
Calhoun	Frank D. Miller	Marshall	Teacher.
	Maude Blair	Homer	Teacher.
	Josiah Phelps	Marshall	Teacher.
Cass	Wm. H. C. Hale	Cassopolis	Teacher.
	H. S. East	Vandalia	Merchant.
	John Finley	Dowagiac	Teacher.
Charlevoix	J. H. Milford	E. Jordan	Teacher.
	S. A. Butler	Boyne City	Teacher.
	J. M. De Voe	Charlevoix	Teacher.
Cheboygan	E. W. Baker	Cheboygan	.....
	W. L. Coffey	Tower	Teacher.
	E. Mae Cunningham	Wolverine	Teacher.
Chippewa	T. R. Easterday	Sault Ste. Marie	Minister.
	T. B. Aldrich	Brimley	Teacher.
	E. T. Brown	Rudyard	Teacher.
Clare	E. G. Welch	Clare	.....
	Peter A. Oman	Lake	Teacher.
	C. H. Jones	Temple	Teacher.
Clinton	T. H. Townsend	St. Johns	Commissioner
	B. F. Duffy	Bath	Principal.
	Vernon Sawyer	Maple Rapids	Principal.
Crawford	J. F. Bradley	Grayling	Teacher.
	C. A. Whitney	Grayling	Teacher.
	Elisabeth Cobb	Frederic	Teacher.
Delta	P. R. Legg	Gladstone	Commissioner.
	Jos. H. McDonald	Rapid River	Teacher.
	James Kenny	Schaffer	Teacher.
Dickinson	E. L. Parmenter	Iron Mountain	Co. com'r schools.
	L. E. Amidon	Iron Mountain	Supt. city schools.
	G. G. Malcolm	Norway	Supt. city schools.

TABLE XXIV.—*Continued.*

County.	Name.	Address.	Occupation.
Eaton	Cynthia A. Green	Charlotte	Teacher.
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	E. C. Hartwell	Petoskey	Teacher.
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	Wm. S. Goudy	Flint	Teacher.
	Lydia Johnson	Flint	Teacher.
Gladwin	Floyd Armstrong	Gladwin	
	C. J. Barnum	Beaverton	Teacher.
	Charlotte Ferrell	Alger, R. F. D.	Teacher.
Gogebic	Laura Bowden	Ironwood	Teacher.
	L. W. Brice	Wakefield	Supt. of schools.
	M. J. Walsh	Bessemer	Supt. of schools.
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	E. O. Ladd	Old Mission	Agriculturist.
	A. H. Clark	Kingsley	Teacher.
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	H. J. Rose	Ashley	Teacher.
	M. E. Hull	St. Louis	Teacher.
Hillsdale	Harry McClave	Hillsdale	Teacher.
	C. L. Chamberlain	Osseo	Teacher.
	Frank Aldrich	Pittsford	Teacher.
Houghton	William Bath	Houghton	Accountant
	A. E. Peterman	Calumet	Lawyer.
	F. A. Jeffers	Painesdale	Teacher.
Huron	C. F. Hey	Bad Axe	Teacher.
	B. F. Plumley	Kinde	Teacher.
	W. H. Sparling	Grindstone	Teacher.
Ingham	F. E. Searl	Mason	Teacher.
	Rose Grettenberger	Okemos	Teacher.
	Clarence Vliet	Leslie	Teacher.
Ionia	Harvey H. Lowrey	Ionia	Teacher.
	J. Calvin Linebaugh	Portland	Teacher.
	George H. Steadman	Lyon, No. 28	Teacher.
Iosco	J. A. Campbell	Whittemore	Teacher.
	Mina C. Hamilton	East Tawas	Teacher.
	C. G. Stratton	Au Sable	Teacher.
Iron	John F. Mason	Mansfield	Bookkeeper.
	H. M. Armstrong	Stanbaugh	Teacher.
	W. D. Hill	Crystal Falls	Teacher.
Isabella	E. T. Cameron	Mt. Pleasant	Teacher.
	F. E. Morrison	Loomis	Teacher.
	Geo. Crawford	Mt. Pleasant	Teacher.
Jackson	Thos. M. Sattler	Jackson	Teacher.
	P. J. O'Leary	Grass Lake	Teacher.
	J. Ray Fisher	Jackson	Teacher.
Kalamazoo	Sheridan Mapes	Kalamazoo	Teacher.
	C. R. Hanes	Schoolcraft	Teacher.
	A. M. Nutten	Comstock	Teacher.
Kalkaska	Irene Louise Getty	Kalkaska	Commissioner.
	E. N. Phelps	Darragh	Farmer, teacher.
	D. A. Barber	So. Boardman	Teacher.
Kent	A. M. Freeland	Grand Rapids	Teacher.
	Robert A. Compton	Sand Lake	Teacher.
	H. D. MacNaughton	Rockford	Teacher.
Keweenaw	F. M. Bradshaw	Gay	Teacher.
	H. D. Winter	Mohawk	Teacher.
	Clarence Chrysler	Copper Falls	Teacher.
Lake	Edwin G. Johnson	Luther	Insurance.
	W. M. McCumsey	Luther	Teacher.
	Mr. Ora Webster	Baldwin	Teacher.
Lapeer	C. H. Naylor	Lapeer	Teacher.
	R. V. Langdon	North Branch	Lawyer.
	Fred Broesamle	Almont	Teacher.

TABLE XXIII.—*Concluded.*

Counties.	Number of teachers required to supply schools.	Number enrolled.			Kinds and grades of certificates held by members.										Number without experience in teaching.	Number having received normal instruction.	Average attendance each half day.	Number of legally qualified teachers in the county.	Percentage of teachers in county attending institute.
		Men.	Women.	Total.	State.	University.	Normal.	First.	Second.	Third.	Special.	College.	City.	County normal.					
Livingston	169	13	160	173	2	.....	12	.....	36	72	.....	.....	.....	.....	.....	.....	.....	180	70
		†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Luce	35	5	33	38	4	.....	5	.....	7	7	.....	2	.....	1	12	10	37	33	99
Mackinac	73	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	79	.....
Macomb	190	20	79	99	.....	1	32	2	28	10	.....	.....	.....	24	1	.....	93	215	45
		†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Manistee	169	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	269	.....
Marquette	301	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	364	.....
Mason	142	14	116	130	2	.....	23	.....	23	13	3	.....	.....	20	35	.....	.....	141	66
Mecosta	152	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	200	.....
Menominee	176	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	200	.....
		†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Midland	111	23	105	128	.....	.....	21	.....	29	17	3	1	2	28	27	30	88	153	65
Missaukee	93	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	110	53
		17	91	108	.....	.....	8	1	28	21	.....	.....	.....	23	.....	.....	.....		
		19	98	117	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	222	52
Monroe	189	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		22	114	136	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60
Montcalm	220	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	271	.....
Montmorency	40	14	36	50	.....	.....	2	2	15	12	.....	.....	.....	.....	19	7	59	40	100
Muskegon	270	6	70	76	.....	.....	4	.....	47	13	.....	.....	.....	1	11	13	76	272	24
		23	225	248	1	6	19	2	51	30	2	2	93	6	11	39	179		87
Newaygo	162	20	72	92	4	.....	11	1	22	28	1	2	.....	13	10	28	92	263	31
		19	111	130	.....	.....	11	1	26	29	2	1	.....	32	25	23	124		40
Oakland	339	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	420	.....
Oceana	147	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	193	.....
		†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
*Ogemaw	71	.....			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	75	.....
Ontonagon	91	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	91	.....
Osceola	145	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	179	.....
		†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Oscoda	28	8	23	31	.....	.....	.....	.....	2	10	1	.....	.....	1	9	1	29	29	76
*Otsego	57	.....			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65	.....
Ottawa	269	†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	201	.....
		†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
		†			.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		

TABLE XXIV.—*Concluded.*

County.	Name.	Address.	Occupation.
Oscoola	Geo. F. Roxburgh	Reed City	Teacher.
	F. C. Smith	Hersey	Teacher.
	M. D. Jerome	Evart	Teacher.
Oscoda	Georgia L. Fowler	Fairview	Commissioner.
	Mr. A. A. Miller	Kneeland	Farmer.
	Mr. John Speck	Kneeland	Teacher.
Otsego	Ray F. Jennings	Vanderbilt	Teacher.
	Sim J. Lewis	Johannesburg	Bookkeeper.
	Mrs. Ethel Connor	Gaylord	Teacher.
Ottawa	M. M. DeGraff	Coopersville	Commissioner.
	N. R. Stanton	Holland, R. R	Teacher.
	H. K. Boer	Zeeland, R. 3	Teacher.
Presque Isle	M. H. Nester	Rogers	Physician.
	A. J. Schroeder	Rogers	Teacher.
	H. G. Gilpin	Rogers	Teacher.
Roscommon	Ellen McCrea	Roscommon	Teacher.
	Mrs. M. W. Gibbons	Roscommon	
	Frances Wehnes	Roscommon	Teacher.
Saginaw	Burton S. Tefft	Saginaw, W. S	Teacher.
	James E. McDonald	Saginaw	Teacher.
	L. K. Hendrick	Frankenmuth	
St. Clair	E. T. Blackney	Port Huron	Teacher.
	W. J. Tripp	St. Clair	Teacher.
	E. A. Dulmage	Marine City	Teacher.
St. Joseph	L. E. Miller	Centerville	Teacher.
	Geo. F. DeLong	Three Rivers	Teacher.
	Theo. Rumbaugh	Constantine	Teacher.
Sanilac	W. J. Musselman	Sandusky	Teacher.
	Anna Mahon	Downington	Teacher.
	Robert Brown	Carsonville	Teacher.
Schoolcraft	W. T. S. Cornell	Manistique	Teacher.
	Miss Frances Mitchell		
	Carey W. Dunton	Manistique	Lawyer.
Shiawassee	H. E. Slocum	Corunna	Teacher.
	R. C. Smith	Durand	Teacher.
	W. E. Hanson	Owosso	Teacher.
Tuscola	H. P. Bush	Caro	Teacher.
	E. H. Diamond	Tuscola	Teacher.
	C. D. Butler	Akron	Teacher.
Van Buren	V. R. Hungerford	Paw Paw	Teacher.
	E. V. Root	Bangor	Teacher.
	F. S. Pierce	Lawrence	Teacher.
Washtenaw	Evan Essery	Ann Arbor	Teacher.
	Josephine Hoppe	Chelsea	Teacher.
	Edith Steere	Ann Arbor	Teacher.
Wayne	E. W. Yost	Detroit	Teacher.
	Wm. E. Harris	Highland Park	Teacher.
	Thos. J. Gunn	Detroit	Teacher.
Wexford	W. H. Faunce	Cadillac	Teacher.
	W. E. Clune	Mesick	Teacher.
	H. J. Kenyon	Cadillac, R. 2	Teacher.

TABLE XXV.

General statistics of educational institutions compiled from reports of officers for the academic year 1909-1910.

Name of institution.	Location.	Name of president, superintendent or principal.	Date of organization.	Number of instructors.	Number of students or inmates during the year.	Number of students from Michigan.	Number of graduates at last commencement.	Whole number of graduates since founded.	Number of volumes in library.	Number of volumes added to library during the year.
ESTABLISHED BY ACTS OF LEGISLATURE.										
Educational:										
Central Michigan Normal School	Mt. Pleasant	Charles T. Grawn	1895	42	1,059	1,059	204	2,000	13,180	1,208
Michigan Agricultural College	East Lansing	Jonathan L. Snyder	1857	106	1,494	1,360	92	1,547	31,824	1,296
Michigan College of Mines	Houghton	Fred Walter McNair	1885	30	266	151	84	571	23,823	958
Michigan State Normal College	Ypsilanti	L. H. Jones	1852	82	2,979	1,458	620	7,787	33,000	1,000
Northern State Normal School	Marquette	James H. Kaye	1899	24	575	566	132	740	1,426	521
University of Michigan	Ann Arbor	Harry B. Hutchins	1837	442	5,383	2,832	970	26,979	270,998	12,389
Western State Normal School	Kalamazoo	Dwight Bryant Waldo	1903	40	1,417	1,375	239	690	7,200	1,200
Totals				766	13,173	8,801	2,341	40,314	381,451	18,572
Charitable:										
Industrial Home for Girls	Adrian	Mary C. Johnson	1879	40	498	498	132	2,248	1,325	.....
Industrial School for Boys	Lansing	Edward M. Lawson	1856	20	1,077	750	.....	.....	2,200	25
Michigan School for the Blind	Lansing	Clarence E. Holmes	1881	19	140	140	1	60	4,574	273
Michigan School for the Deaf	Flint	Francis D. Clarke	1854	43	303	303	20	1,780	5,838	100
State Public School	Coldwater	John B. Montgomery	1874	6	629	629	.....	.....	2,300	20
Totals				128	2,647	2,320	153	4,088	16,237	418
INCORPORATED UNDER ACT 39, SESSION LAWS OF 1855, OR CHAPTER 218 OF COMPILED LAWS.										
Denominational:										
Adrian College	Adrian	Brayman W. Anthony	1859	24	182	70	24	661	8,000	150
Albion College	Albion	Samuel Dickie	1861	27	452	425	34	829	19,000	500
Alma College	Alma	August F. Bruske	1887	25	274	261	38	160	22,500	1,980
Detroit College	Detroit	R. D. Sievin	1881	23	297	292	18	301	13,800	200
Emmanuel Missionary College	Berrien Springs	O. J. Graf	1899	21	142	77	17	.....	3,000	.....

Hillsdale College	Hillsdale	Joseph W. Mauck	1855	23	418	330	49	1,222	17,500	477
Hope College	Holland	G. J. Kollen	1866	17	317	252	20	426	16,500	500
Kalamazoo College	Kalamazoo	A. Gaylord Slocum	1855	13	160	138	26	544	13,725	475
Olivet College	Olivet	E. G. Lancaster	1859	25	265	250	33	767	33,000	500
Totals				198	2,507	2,095	259	4,910	147,025	4,782
Academies and Seminaries:										
Academy of the Ladies of the Loretto	Sault Ste. Marie	M. M. Christina	1908	9	155	150	9	40	1,295	50
Academy of the Sacred Heart	Grosse Pointe Farms	Madame Kieffer	1885	15	42	33	.....	67	2,808	200
Academy of the Sacred Heart	Detroit	Madame Louise Gerardin	1850	10	85	85	.....	.....	3,089	75
Bensonia Academy	Bensonia	G. R. Cotton	1900	4	64	4	10	30	4,000	.....
Detroit Home and Day School	Detroit	Ella M. Leggett	1882	36	358	345	24	433	3,600	100
Detroit University School	Detroit	Frederick L. Bliss	1901	23	251	232	25	303	2,280	26
Holy Rosary Academy	Bay City	Mother M. Aquinata	1905	11	56	54	2	8	900	50
Nazareth Academy	Nazareth	Sister M. Gertrude Keenan	1897	24	149	113	1	21	7,000	200
St. Mary's Academy	Monroe	Mother M. Michtildis	1890	31	365	282	24	245	10,481	351
St. Mary's School	Sault Ste. Marie	Sister St. Maurice	1898	8	430	430	.....	.....	500	250
Seminary of the Felician Sisters	Detroit	Magdalene Bronek	1882	5	72	24	5	305	2,153	18
Spring Arbor Seminary	Spring Arbor	Harold A. Millican	.....	10	160	119	8	.....	800	.....
Theological School and Calvin College	Grand Rapids	Louis Berkhof	1876	12	204	145	31	236	4,000	.....
Ursuline Academy	St. Ignace	Mother M. Angela	1899	8	150	149	5	24	1,050	50
Totals				206	2,541	2,165	144	1,712	43,956	1,370
Professional Schools:										
Detroit College of Law	Detroit	Hon. Philip T. Van Zile	1893	26	232	178	45	710	17,165	575
Detroit College of Medicine	Detroit	Dr. Theo. McGraw	1885	113	152	119	38	2,269	1,200	.....
Detroit Homeopathic College	Detroit	C. C. Miller	.....	41	26	26	5	.....	1,200	200
Sprague Correspondence School of Law	Detroit	Griffith Ogden Ellis	1891	4	1,200	.....	.....	.....	.....	.....
Totals				184	1,610	323	88	2,979	19,565	775

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Western State Normal School	Kalamazoo	Dwight Bryant Waldo	1903	40	1,417	1,375	239	690	7,200	1,200
Totals				766	13,173	8,801	2,341	40,314	381,451	18,572
Charitable:										
Industrial Home for Girls	Adrian	Mary C. Johnson	1879	40	498	498	132	2,248	1,325	.....
Industrial School for Boys	Lansing	Edward M. Lawson	1856	20	1,077	750	.....	.....	2,200	25
Michigan School for the Blind	Lansing	Clarence E. Holmes	1881	19	140	140	1	60	4,574	273
Michigan School for the Deaf	Flint	Francis D. Clarke	1854	43	303	303	20	1,780	5,838	100
State Public School	Coldwater	John B. Montgomery	1874	6	629	629	.....	.....	2,300	20
Totals				128	2,647	2,320	153	4,088	16,237	418
INCORPORATED UNDER ACT 39, SESSION LAWS OF 1855, OR CHAPTER 218 OF COMPILED LAWS.										
Denominational:										
Adrian College	Adrian	Brayman W. Anthony	1859	24	182	70	24	661	8,000	150
Albion College	Albion	Samuel Dickie	1861	27	452	425	34	829	19,000	500
Alma College	Alma	August F. Bruske	1887	25	274	261	38	160	22,500	1,980
Detroit College	Detroit	R. D. Sievin	1881	23	297	292	18	301	13,800	200
Emmanuel Missionary College	Berrien Springs	O. J. Graf	1899	21	142	77	17	.....	3,000	.....

Hillsdale College	Hillsdale	Joseph W. Mauck	1855	23	418	330	49	1,222	17,500	477
Hope College	Holland	G. J. Kollen	1866	17	317	252	20	426	16,500	500
Kalamazoo College	Kalamazoo	A. Gaylord Slocum	1855	13	160	138	26	544	13,725	475
Olivet College	Olivet	E. G. Lancaster	1859	25	265	250	33	767	33,000	500
Totals				198	2,507	2,095	259	4,910	147,025	4,782
Academies and Seminaries:										
Academy of the Ladies of the Loretto	Sault Ste. Marie	M. M. Christina	1908	9	155	150	9	40	1,295	50
Academy of the Sacred Heart	Grosse Pointe Farms	Madame Kieffer	1885	15	42	33	.....	67	2,808	200
Academy of the Sacred Heart	Detroit	Madame Louise Gerardin	1850	10	85	85	.....	.....	3,089	75
Bensonia Academy	Bensonia	G. R. Cotton	1900	4	64	4	10	30	4,000	.....
Detroit Home and Day School	Detroit	Ella M. Leggett	1882	36	358	345	24	433	3,600	100
Detroit University School	Detroit	Frederick L. Bliss	1901	23	251	232	25	303	2,280	26
Holy Rosary Academy	Bay City	Mother M. Aquinata	1905	11	56	54	2	8	900	50
Nazareth Academy	Nazareth	Sister M. Gertrude Keenan	1897	24	149	113	1	21	7,000	200
St. Mary's Academy	Monroe	Mother M. Michtildis	1890	31	365	282	24	245	10,481	351
St. Mary's School	Sault Ste. Marie	Sister St. Maurice	1898	8	430	430	.....	.....	500	250
Seminary of the Felician Sisters	Detroit	Magdalene Bronek	1882	5	72	24	5	305	2,153	18
Spring Arbor Seminary	Spring Arbor	Harold A. Millican	.....	10	160	119	8	.....	800	.....
Theological School and Calvin College	Grand Rapids	Louis Berkhof	1876	12	204	145	31	236	4,000	.....
Ursuline Academy	St. Ignace	Mother M. Angela	1899	8	150	149	5	24	1,050	50
Totals				206	2,541	2,165	144	1,712	43,956	1,370
Professional Schools:										
Detroit College of Law	Detroit	Hon. Philip T. Van Zile	1893	26	232	178	45	710	17,165	575
Detroit College of Medicine	Detroit	Dr. Theo. McGraw	1885	113	152	119	38	2,269	1,200	.....
Detroit Homeopathic College	Detroit	C. C. Miller	.....	41	26	26	5	.....	1,200	200
Sprague Correspondence School of Law	Detroit	Griffith Ogden Ellis	1891	4	1,200	.....	.....	.....	.....	.....
Totals				184	1,610	323	88	2,979	19,565	775

TABLE XXV. *Concluded.*

Name of institution	Location.	Name of president, superintendent or principal.	Date of organization.	Number of instructors.	Number of students or inmates during the year.	Number of students from Michigan.	Number of graduates at last commencement.	Whole number of graduates since founded.	Number of volumes in library.	Number of volumes added to library during the year.
Schools with Normal and Business courses										
Benton Harbor College	Benton Harbor	A. J. Edgcumbe	1902	16	242	220	20	513	1,220	17
Cedar Lake Academy	Cedar Lake	W. F. Avery	1902	4	40	40	7	35	250	.....
Ferris Institute	Ypsilanti	P. R. Cleary	1901	8	414	406	67	1,400	600	10
Big Rapids Business College	Big Rapids	W. N. Ferris	1904	27	1,900	1,875	171	1,420	2,500	200
Normal Business College	Saginaw	H. W. Peary	1901	6	120	120	10	.....	.....	.....
Jackson Business University	Jackson	B. J. Campbell	1901	4	141	141	28	.....	.....	.....
Lexington Business College	Lexington	E. W. Cook	1906	2	67	67	8	.....	.....	.....
Battle Creek Business University	Battle Creek	C. J. Arguright	1906	4	204	200	110	.....	500	.....
Kalamazoo Business College	Kalamazoo	Wm. F. Parsons	1901	5	172	170	45	.....	.....	.....
Grand Rapids Business College	Grand Rapids	F. E. Brooks	1897	5	218	218	.....	.....	.....	.....
Totals				80	3,566	3,400	482	3,378	5,080	227

TABLE XXVI.—*Financial statistics of educational institutions compiled from reports of officers for the academic year 1909-1910.*

Name of institution.	Annual cost of tuition per student.	Average cost of board per week.	Total average annual cost to each student.	Total average annual cost of each student to the State.	Estimated value of grounds, buildings, library, apparatus, etc.	Amount of productive funds.	Income from productive funds.	Amount of legislative appropriation for 1910.	Receipts from tuition fees during the year.	Receipts from all other sources.	Current expenses for the year.	Expenses for permanent improvements.	Liabilities.
ESTABLISHED BY ACTS OF LEGISLATURE.													
Educational:													
Central Michigan Normal School	$9 00	$2 50	$150 00	$74 13	$300,000 00	.....	.....	$89,000 00	$2,766 00	$89,733 00	$75,000 00	$14,000 00	.....
Michigan Agricultural College	15 00	2 75	260 00	.....	1,313,837 49	$986,338 49	$71,109 49	.....	1,680 00	337,524 77	321,910 90	56,915 75	.....
Michigan College of Mines	25 00 / 150 00	5 00	500 00 / 650 00	244 35	651,893 48	.....	.....	65,000 00	32,011 50	10,444 45	107,455 95	.....	.....
Michigan State Normal College	9 00	2 75	175 00	55 42	499,500 00	.....	4,167 54	145,000 00	13,156 50	2,812 00	165,097 49	6,000 00	.....
Northern State Normal School	9 00	4 25	192 00	86 00	239,612 04	.....	.....	50,000 00	3,590 75	.....	53,590 75	1,500 00	.....
University of Michigan	60 00	3 50	500 00	122 00	4,152,289 74	545,946 00	38,500 00	650,287 50	327,000 00	145,000 00	1,096,354 77	301,253 60	.....
Western State Normal School	9 00	3 00	180 00	56 83	286,265 28	.....	.....	75,000 00	5,536 50	.....	80,536 50	15,000 00	.....
Charitable:													
Industrial Home for Girls	.....	85	.....	123 50	250,000 00	.....	3,769 94	74,000 00	.....	280 30	75,035 62	970 35	.....
Industrial School for Boys	.....	.....	.....	140 00	426,786 35	.....	.....	88,000 00	.....	10,197 88	101,486 36	.....	.....
Michigan School for the Blind	.....	.....	.....	.....	182,991 00	.....	.....	40,000 00	.....	3,878 21	39,785 92	37,450 00	.....
Michigan School for the Deaf	64 67	1 86	.....	286 56	531,543 31	.....	.....	80,000 00	.....	37,996 57	99,825 14	15,546 01	.....
State Public School	.....	1 32	.....	30 24	281,278 59	1,000 00	43 34	40,500 00	.....	1,531 57	40,000 00	500 00	.....
INCORPORATED UNDER ACT 39, SESSION LAWS OF 1855, OR CHAPTER 218 OF COMPILED LAWS.													
Denominational:													
Adrian College	70 00	4 00	200 00	.....	225,000 00	41,000 00	2,200 00	.....	5,500 00	26,601 09	31,946 76	1,350 00	$10,000 00
Albion College	30 00	2 50	200 00	.....	232,000 00	285,000 00	17,400 00	.....	20,906 64	13,543 93	54,513 88	.....	25,880 00
Alma College	32 00	2 75	200 00	.....	182,288 16	389,892 10	23,115 91	.....	6,429 83	2,998 18	31,378 83	.....	.....
Detroit College	60 00	.....	.....	.....	170 000 00	.....	.....	.....	13,417 60	17,000 00	14,650 00	.....	18,000 00
Emmanuel Missionary College	36 00	1 50	144 00	.....	105,659 76	.....	.....	.....	3,218 40	27,364 99	30,537 21	9,989 47	40,339 45
Hillsdale College	27 00	2 50	250 00	.....	180,098 63	237,091 26	15,665 25	.....	5,352 55	6,937 04	25,095 38	3,938 51	.....
Hope College	24 00	2 75	175 00	.....	337,000 00	325,000 00	16,953 00	.....	5,156 00	7,220 00	35,266 75	.....	.....
Kalamazoo College	30 00	4 00	275 00	.....	143,500 00	440,705 22	20,336 15	.....	4,431 50	5,559 57	30,267 43	693 03	9,173 82
Olivet College	75 00	2 50	225 00	.....	300,000 00	141,182 00	5,500 00	.....	15,000 00	16,887 00	42,850 00	.....	62,412 94
Academies and Seminaries:													
Academy of the Ladies of the Loretto	20 00	3 50	205 00	.....	.....	.....	.....	.....	.....	.....	.....	30,000 00	.....
Academy of the Sacred Heart	.....	.....	300 00	.....	.....	.....	.....	.....	12,600 00	200 00	13,000 00	6,000 00	.....

TABLE XXV.—*Concluded.*

Name of institution.	Location.	Name of president, superintendent or principal.	Date of organization.	Number of instructors.	Number of students or inmates during the year.	Number of students from Michigan.	Number of graduates at last commencement.	Whole number of graduates since founded.	Number of volumes in library.	Number of volumes added to library during the year.
Schools with Normal and Business Courses:										
Benton Harbor College	Benton Harbor	A. J. Edgcumbe	1892	16	242	230	30	513	1,230	17
Cedar Lake Academy	Cedar Lake	W. S. Avery	1902	4	40	40	7	35	250	.....
Cleary Business College	Ypsilanti	P. R. Cleary	1891	8	414	408	67	1,400	600	10
Ferris Institute	Big Rapids	W. N. Ferris	1894	27	1,950	1,875	171	1,430	2,500	200
International Business College	Saginaw	S. W. Pearcy	1896	5	120	120	10	.....	.....	.....
Jackson Business University	Jackson	B. J. Campbell	1901	4	141	141	28	.....	.....	.....
Ludington Business College	Ludington	E. W. Doak	1898	2	67	67	8	.....	.....	.....
Michigan Business and Normal College	Battle Creek	C. J. Argubright	1898	4	204	200	116	.....	500	.....
Parson's Business College	Kalamazoo	Wm. F. Parsons	1906	5	172	170	45	.....	.....	.....
Valley City Commercial School	Grand Rapids	F. S. Brooks	1897	5	218	218	.....	.....	.....	.....
Totals	.....	.....	.....	80	3,568	3,469	482	3,378	5,080	227

TABLE XXVI.—*Financial statistics of educational institutions compiled from reports of officers for the academic year 1909-1910.*

Name of institution.	Annual cost of tuition per student.	Average cost of board per week.	Total average annual cost to each student.	Total average annual cost of each student to the State.	Estimated value of grounds, buildings, library, apparatus, etc.	Amount of productive funds.	Income from productive funds.	Amount of legislative appropriation for 1910.	Receipts from tuition fees during the year.	Receipts from all other sources.	Current expenses for the year.	Expenses for permanent improvements.	Liabilities.
ESTABLISHED BY ACTS OF LEGISLATURE.													
Educational:													
Central Michigan Normal School	$9 00	$2 50	$150 00	$74 13	$300,000 00			$89,000 00	$2,768 00	$89,738 00	$75,000 00	$14,000 00	
Michigan Agricultural College	15 00	2 75	260 00		1,313,837 49	$986,338 49	$71,109 49		1,680 00	337,524 77	321,910 90	56,915 75	
Michigan College of Mines	25 00 150 00	5 00	500 00 650 00	244 35	651,893 48			65,000 00	32,011 50	10,444 45	107,455 95		
Michigan State Normal College	9 00	2 75	175 00	55 42	499,500 00		4,167 54	145,000 00	13,156 50	2,812 00	165,097 49	6,000 00	
Northern State Normal School	9 00	4 25	192 00	86 00	239,612 04			50,000 00	3,590 75		53,590 75	1,500 00	
University of Michigan	60 00	3 50	500 00	122 00	4,152,289 74	545,946 00	38,500 00	650,287 50	327,000 00	145,000 00	1,096,354 77	301,253 60	
Western State Normal School	9 00	3 00	180 00	56 83	286,265 28			75,000 00	5,536 50		80,536 50	15,000 00	
Charitable:													
Industrial Home for Girls		85		123 50	250,000 00		3,769 94	74,000 00		280 30	75,035 62	970 35	
Industrial School for Boys				140 00	426,786 35			88,000 00		10,197 88	101,486 36		
Michigan School for the Blind					182,991 00			40,000 00		3,878 21	39,785 92	37,450 00	
Michigan School for the Deaf	64 67	1 86		286 56	531,543 31			80,000 00		37,996 57	99,825 14	15,546 01	
State Public School		1 32		30 24	281,278 59	1,000 00	43 34	40,500 00		1,531 57	40,000 00	500 00	
INCORPORATED UNDER ACT 39, SESSION LAWS OF 1855, OR CHAPTER 218 OF COMPILED LAWS.													
Denominational:													
Adrian College	70 00	4 00	200 00		225,000 00	41,000 00	2,200 00		5,500 00	26,601 09	31,946 76	1,350 00	$10,000 00
Albion College	30 00	2 50	200 00		232,000 00	285,000 00	17,400 00		20,906 64	13,543 93	54,513 88		25,880 00
Alma College	32 00	2 75	200 00		182,288 16	389,892 10	23,115 91		6,429 83	2,998 18	31,378 83		
Detroit College	60 00				170 000 00				13,417 60	17,000 00	14,650 00		18,000 00
Emmanuel Missionary College	36 00	1 50	144 00		105,659 76				3,218 40	27,364 99	30,537 21	9,989 47	40,339 45
Hillsdale College	27 00	2 50	250 00		180,098 63	237,091 26	15,665 25		5,352 55	6,937 04	25,095 38	3,938 51	
Hope College	24 00	2 75	175 00		337,000 00	325,000 00	16,953 00		5,156 00	7,220 00	35,266 75		
Kalamazoo College	30 00	4 00	275 00		143,500 00	440,705 22	20,326 15		4,431 50	5,559 57	30,267 43	693 03	9,173 82
Olivet College	75 00	2 50	225 00		300,000 00	141,182 00	5,500 00		15,000 00	16,887 00	42,850 00		62,412 94
Academies and Seminaries:													
Academy of the Ladies of the Loretto	20 00	3 50	205 00									30,000 00	
Academy of the Sacred Heart			300 00						12,600 00	200 00	13,000 00	6,000 00	

TABLE XXVI.—*Concluded.*

Name of institution.	Annual cost of tuition per student.	Average cost of board per week.	Total average annual cost to each student.	Total average annual cost of each student to the State.	Estimated value of grounds, buildings, library, apparatus, etc.	Amount of productive funds.	Income from productive funds.	Amount of legislative appropriation for 1910.	Receipts from tuition fees during the year.	Receipts from all other sources.	Current expenses for the year.	Expenses for permanent improvements.	Liabilities.
INCORPORATED UNDER ACT 39, SESSION LAWS OF 1855, OR CHAPTER 218 OF COMPILED LAWS.													
Academies and seminaries.													
Academy of the Sacred Heart	$70 00		$70 00						$3 837 00			$17,075 25	
Benzonia Academy	30 00	$3 25	150 00		$35,000 00	$15,000 00	$850 00		1,500 00	$1,500 00	$3,790 00		$2,500 00
Detroit Home and Day School	140 00	5 00	140 00		95,000 00				70,000 00			2,000 00	
Detroit University School					164,941 35				51,123 04	7,312 92	57,543 93	2,468 65	103,658 83
Holy Rosary Academy	40 00	3 00	150 00		85,000 00				1,240 00	6,000 00	5,000 00	1,200 00	
Nazareth Academy	150 00	3 75											
St. Mary's Academy	40 00	3 00	160 00		250,000 00				26,239 18	36,842 48	48,089 29	8,048 86	87,802 30
St. Mary's School	5 00		5 00		30,000 00				353 23	2,251 00	2,704 00		9,000 00
Seminary of Felician Sisters	50 00	4 25	160 00		100,000 00				940 00	3,480 00		3,530 00	
Spring Arbor Seminary	27 00	2 25	125 00		28,000 00	7,000 00	250 00		4,000 00	1,000 00	5,400 00	100 00	1,900 00
Theological School and Calvin College	26 00	3 50	250 00		56,000 00	38,000 00	2,000 00		4,300 00	14,125 00	20,980 00		
Ursuline Academy	5 00	3 00	120 00		16,000 00				900 00	3,500 00	4,000 00	500 00	200 00
Professional Schools:													
Detroit College of Law	75 00								15,931 72	590 28	16,435 74		
Detroit College of Medicine	115 00	3 50			150,000 00		2,690 00		16,822 26	478 85	17,895 01	8,000 00	32,000 00
Detroit Homeopathic College					75,000 00				3,000 00	2,500 00	5,000 00	3,000 00	11,000 00
Sprague Correspondence School of Law	30 00		65 00						14,275 00	15,575 52	30,398 41		
Schools with Normal and Business Courses:													
Benton Harbor College	50 00	2 75	130 00		60,000 00				7,425 00		5,420 00	5,520 00	420 00
Cedar Lake Academy	36 00	1 50	126 00		12,389 82				1,150 00				4,128 98
Cleary Business College	70 00	2 50			29,256 78				10,718 57	330 76	11,349 13		18,484 95
Ferris Institute	40 00	2 75	150 00		125,000 00				46,000 00	6,300 00	48,500 00	2,000 00	
International Business College	75 00	3 50							3,587 13	358 79	3,482 06		
Jackson Business University	90 00								3,456 00	1,425 70	4,125 00	350 00	
Ludington Business College	84 00	3 00	180 00		5,000 00				3,000 00	400 00	2,500 00		3,000 00
Michigan Business and Normal College	85 00	3 00	250 00		7,500 00		12,211 63		12,127 15	84 48	11,826 18	150 00	5,607 92
Parson's Business College	75 00	4 50	309 00		9,000 00				5,236 58		7,609 69		18,771 73
Valley City Commercial School	96 00	4 00	300 00							7,266 07	8,457 96		1,820 00

TABLE XXVII.—*Special statistics compiled from commissioners' reports.*

Counties.	Parochial schools.							
	Number of schools.	Number of children enrolled.	Age of same.	Branches taught.	Character of instruction.	Number of instructors.	Regularity of attendance.	Length of time of school.
Allegan	3	180	6 to 16	Christian (Catholic and Adventist) doctrines, Bible history, English and German grammar, English and German spelling, English, German and Polish reading, writing, geography, U. S. history, drawing, physics, civics and arithmetic	Medium to good	5	74%	9 to 10 mo.
Alpena	5	990	7 to 16	Common school, English branches, catechism, church history		20		8 to 10 mo.
Arenac	2	40	5 to 16	German, Bible study and all the common branches		2	Good	6 to 7 mo.
Baraga	1	100	5 to 14	Reading, writing, arithmetic, geography, physiology, government, music, drawing, language	Good	5	Good	10 mo.
Barry	3	19		Common school branches and Bible study		2	Good	8 mo.
Bay	23							
Berrien	7	459	5 to 16	In some ordinary branches in common school, in others little is taught excepting church catechism		11	Fair	5½ to 9 mo.
Branch	1	170	7 to 17	The same as taught in the public schools from 1st to 9th, also music, drawing and sewing	Fair	3	120%	8½ mo.
Cass	1	16	5 to 17	Common school branches and the Adventist religion		1	Good	8 mo.
Charlevoix	2	200	5 to 17	Regular common school course, including the eighth grade	Good	6	Excellent	9 mo.
Cheboygan	6	460	7 to 16	Common branches, music, etc	Very good	12	Good	7 to 10 mo.
Chippewa	1	400	5 to 20	Common school		8	Good	10 mo.
Clinton	3	225	5 to 17	All common branches and in addition Bible and German except in Lutheran comfirmation school: there only Bible, German, etc	Good	6	Good	5 to 10 mo.
Delta	2	782	5 to 18	Common school branches	Good	17	Good	9 to 9½ mo.
Dickinson	1	300	5 to 16	Reading, writing, spelling, arithmetic, language, grammar, composition, catechism, Bible history, music				
Eaton	1	19	7 to 16	Eight grades of common branches from about the same texts as are generally used in the county public schools	Good	1	Regular	9 mo.
Emmet	3	220	5 to 20	Same as rural schools	Fair	10	Good	9 mo.
Genesee	1	100		First eight grades		4	Good	10 mo.
Gogebic	2	658	6 to 18	Common and high school branches, with religious instruction		12	90%	10 mo.
Grand Traverse	3	256	5 to 18	Common English, high school and sectarian subjects	Excellent	12		7 to 9 mo.
Gratiot	1	12	5 to 15	Common branches and Bible	Adventist	1	Good	8 mo.
Houghton	12	3,137	7 to 15	Same as public schools	Good	64	Excellent	10 mo.
Huron	6	300	6 to 14	Common branches	English	8	Fair	9 to 10 mo.
Ingham	2	300	5 to 19	Common branches and 4 years high school course in one		11	Good	9 to 9½ mo.

TABLE XXVII.—*Continued.*

Counties.	Parochial schools.							
	Number of schools.	Number of children enrolled.	Age of same.	Branches taught.	Character of instruction.	Number of instructors.	Regularity of attendance.	Length of time of school.
Ionia	5	495	6 to 18	Catechism, English, U. S. history, civil government, reading, writing, arithmetic, algebra, geography, spelling, physiology, physics, general history, music, drawing, geometry, German, Latin	Very good	17	Good	7 to 10 mo.
Iosco	2	130	6 to 14	Reading, arithmetic, geography, U. S. history, civil government, language, orthography, music, German, English, penmanship, catechism	Fair	2	Good	10 mo.
Isabella	2	400	6 to 17	All common school branches, German and catechism	Fair	8	Fair	8 to 10 mo.
Jackson	2	370		Common school branches to 12th grade	Fine	14	Good	9 mo.
Kalamazoo	5	795	6 to 18	Common—similar to public schools				
Kent	21	3,000	5 to 20	State Course of Study followed	Good	135	Good	9 to 11 mo.
Leelanau	2	146	5 to 20	Eight grades		3	84%	9 mo.
Lenawee	6	275	12 to 15	English in addition to catechism and church history	Good	8	Good	7 to 9 mo.
Mackinac	1	167	5 to 19	Arithmetic, government, grammar, geography, orthography, spelling, penmanship, physiology, reading, algebra, geometry, botany, general history, U. S. history, music, stenography, typewriting, French, Latin, German, bookkeeping	Good	9	Good	10 mo.
Macomb	18	300	8 to 14	Branches of first 6 grades	Varies			
Manistee	2	1,600	6 to 14	Common branches	Fair		Good	9 mo.
Marquette	3	1,166	6 to 20	Geometry, algebra, physics, rhetoric, geology, history, botany, drawing, Latin, composition, grammar, arithmetic, geography, penmanship, orthography, reading, shorthand, bookkeeping, typewriting and music	Catholic	26	Regular	10 mo.
Mason	4	400	5 to 20	Same as public schools, also commercial and religion	Good	9	Good	6 wks. to 10 mo.
Mecosta	4		5 to 18	In two Catholic schools, reading, arithmetic, geography, orthography, spelling, grammar, U. S. history, physiology, civil government, science, music, penmanship, drawing and Christian Doctrine		5	90%	10 mo.
Menominee	3	511	5 to 15	Common English	Good	11	Good	9 to 10 mo.
Monroe	13	335	5 to 14	Common branches, catechism and Bible history	Religious	21	Fair	8 to 10 mo.
Montcalm	2	157	5 to 30	All common branches, literature, Latin and drawing		3	Good	8 to 10 mo.
Montmorency	1	40	5 to 16	Arithmetic, grammar, geography, reading, physiology, German, history, government		1	Poor	6 mo.
Muskegon	6	700	6 to 16	English branches, high school course, also Holland in third grade	Excellent	29	Good	10 mo.
Newaygo	1	15	5 to 18	State Course of Study and Bible	Very good	1	Regular	8 mo.
Oakland	1			All English branches—12 grades	Good			10 mo.
Oceana	2	150	8 to 20	Same as public schools with Bible history, religious instruction and German	Varies	4	Good	8 mo.
Osceola	1	62	5 to 15	Public school course to sixth grade, German, language, Bible and catechism	Sectarian	1	Regular	10½ mo.

Otsego	1	123	6 to 14	Arithmetic, language, physiology, geography, grammar, Christian doctrine, reading (English and Polish) and penmanship		3	Irregular	[9 mo.
Ottawa	6	800	5 to 15	All common branches		17	Good	
Presque Isle	6	340	9 to 14	Most of the common English	Recitational	10	Regular	5 to 10 mo.
Saginaw	16							
St. Clair	13	750	5 to 18	English branches		21		5 to 7½ mo.
St. Joseph	1	50	5 to 17	Regular eighth grade subjects	Very good	1	Good	[9 mo.
Sanilac	5	75	13 to 14	Eighth grade and catechism	Religious	5		3 to 5 mo.
Schoolcraft	1	240	5 to 16	Same as in public schools		5	Good	10 mo.
Shiawassee	4	300	8 to 16	Common branches and church instruction	Good	5	Good	10 mo.
Van Buren	3	16	6 to 17	Bible, German, catechism, English branches	Religious	3	Good	8 mo.
Washtenaw	4		7 to 16					
Wayne	8	860	5 to 15	Common branches, Christian doctrine, church history, Bible history and catechism		20	Good	8 to 10 mo.
Wexford	2	22	5 to 20	Common branches	Good	1	Good	9 mo.

TABLE XXVII.—*Continued.*

Counties.	Commercial schools.						
	Number of schools.	Number of students.	Branches taught.	Character of instruction.	Number of instructors.	Length of time of school.	Name and location of each school.
Alpena	1		Commercial, typewriting, stenography, bookkeeping, business		3	10 mo.	Alpena, Alpena Business College.
Charlevoix	1	30	Regular commercial work	Good	1	9 mo.	In connection with high school, Charlevoix.
Chippewa	1		Commercial branches	Good	4	12 mo.	
Delta	1	35	Shorthand, typewriting, commercial arithmetic, and commercial forms	Good	2	12 mo.	Gordon's Business College, Escanaba.
Dickinson	2	35	Commercial arithmetic, typewriting, stenography	Fair	2	9 mo.	Ferguson Business College, Actual Business College, Iron Mountain.
Genesee	2	200	Business courses		5	8 mo.	Flint Business College, Flint Business University, Flint.
Grand Traverse	1	80	English and commercial, music and business, law	Fair	4	12 mo.	The Needham Business College, Traverse City.
Hillsdale	1	40	Bookkeeping, English branches, shorthand		2	10 mo.	Hillsdale College, Commercial Dept., Hillsdale.
Manistee	1	200	Business and common branches	Excellent	6	12 mo.	Manistee Business College, Manistee.
Marquette	2	90	English commercial law, bookkeeping, shorthand, typewriting, spelling, penmanship, arithmetic	Commercial	4	12 mo.	Marquette and Ishpeming Business Colleges.
Monroe	1	35	Commercial—common as arithmetic, spelling, grammar, typewriting, shorthand, bookkeeping	Commercial	2	8 mo.	Monroe Business University, Monroe.
Oakland	1	115	English branches and commercial		3	12 mo.	Pontiac Business College, Pontiac.
St. Clair	2	150	Common branches and commercial law		5	10 mo.	Port Huron Business University, 512 Butler St.; International Business College, 1103 Military St., Port Huron.
Schoolcraft	1	33	Bookkeeping, shorthand, typewriting, commercial arithmetic, commercial law, spelling, commercial English, penmanship		2	12 mo.	Manistique Business College, Manistique.
Shiawassee	1	50	Commercial	Good	2	9 mo.	Owosso Business College, Owosso.
Washtenaw	2		Common commercial branches			12 mo.	Cleary Business College, Ypsilanti. Moran's Business College, Ann Arbor.
Wexford	1	15	Commercial branches	Fair	1	12 mo.	Cadillac Commercial College, Cadillac.

TABLE XXVII.—*Concluded.*

Counties.	Private schools.						
	Number of schools.	Number of students.	Branches taught.	Number of instructors.	Length of time of school.	Name and location of each school.	Character of instruction.
Berrien	3	640	Common school, academic and collegiate	38	8 to 9 mo.	Benton Harbor College and House of David Private School in Benton Harbor; Emmanuel College, Berrien Springs.	Excellent.
Chippewa	1	140	High school	6	10 mo.	Loretto Academy, Sault Ste. Marie.	Varies.
Genesee	1	30	Eight grades	1	.....	Lillian Hiccox, Flint.	.....
Ionia	1	5	According to the State Course of Study and two recitations daily in the Bible	1	7 mo.	Odessa Christian School, Odessa.	Very good.
Kent	2	500	High school branches	25	12 mo.	Webb Academy, Miss Moffett's Preparatory.	Good.
Ottawa	1	60	Common and high school, college preparatory	10	9 mo.	Akeley Hall, Grand Haven.	.....
St. Clair	1	45	Grades one to eight	2	9½ mo.	Miss Coyles, 610 Beers St., Port Huron.	Fair.

TABLE XXVIII.

Special report of day schools for the deaf for the school year 1909-1910.

Location.	Number of teachers employed.	Number of pupils enrolled.	Total days' attendance.	Average number belonging.	Actual cost of school.
Totals	29	197	29,405	163	$23,996 48
Bay City	1	11	1,704	9	$1,009 48
Calumet	2	12	1,861	10	2,050 00
Detroit	10	67	9,726	55	8,300 00
Grand Rapids	5	28	4,335	24	3,555 00
Houghton	1	5	965	5	850 00
Iron Mountain	1	8	880	5	900 00
Ironwood	1	6	1,132	6	800 00
Kalamazoo	1	8	1,147	6	825 00
Lake Linden	1	5	768	4	800 00
Manistee	1	10	1,580	9	1,022 60
Marquette	1	10	1,414	8	1,040 00
Saginaw	1	9	1,136	7	932 50
Sault Ste. Marie	2	11	1,638	9	1,048 75
Traverse City	1	7	1,119	6	863 15

TABLE XXIX.

Special report of the county normal training classes for the school year 1909-1910.

Counties.	Number of teachers.	Amount paid teachers.	Number of graduates.	Average age of graduates.	Average number hours of practice teaching by graduates.
Totals	134	$58,467 11	584	19	56.4
*Allegan	3	$1,600 00	.....	.....	.....
Antrim	5	1,350 00	18	19	50
Arenac	3	1,300 00	10	19	54
Barry	2	1,400 00	19	18	51
Benzie	2	1,450 00	12	18	50
Berrien	3	900 00	15	21	58
Branch	5	1,602 00	20	19	50
Calhoun	4	1,400 00	16	19	59
Cass	4	1,400 00	9	20	58
Charlevoix	2	1,600 00	17	20	56
Cheboygan	2	1,500 00	17	19	80
Clinton	5	1,450 00	26	19	57
Eaton	4	1,175 00	15	19	50
Genesee	2	1,600 00	14	19	55
Gratiot	4	1,250 00	11	18	50
Ingham	3	1,400 04	17	18	50
Ionia	3	1,300 08	18	19	43
Iosco	3	1,219 95	11	19	51
Kalkaska	3	1,200 00	13	19	54
*Lapeer	2	1,450 00	.....	.....	.....
Lenawee	2	1,350 00	18	20	51
Macomb	2	1,250 00	12	19	52
Manistee	5	1,500 00	8	20	56
Mason	2	1,500 00	15	19	60
*Mecosta	4	1,250 00	.....	.....	.....
Menominee	2	1,720 00	17	19	50
Midland	4	1,400 04	17	19	48
Montcalm	3	1,400 00	18	19	45
Muskegon	2	1,550 00	8	20	95
Newaygo	4	1,500 00	18	20	51
Oakland	2	1,400 00	13	19	50
Oceana	5	1,750 00	14	19	50
Osceola	2	1,750 00	16	19	55
Otsego	3	750 00	9	18	37
Ottawa	4	1,300 00	18	20	61
Saginaw	7	1,175 00	9	19	55
St. Clair	2	1,525 00	24	19	78
Sanilac	2	1,450 00	13	19	80
Shiawassee	4	1,250 00	16	19	75
Tuscola	3	1,500 00	17	19	50
Van Buren	3	1,300 00	10	20	67
Wexford	3	1,350 00	16	20	64

*No report.

TABLE XXX.

Summary of census of children blind or with defective vision under Act 116, 1907.

Counties.	Number of children blind or with defective vision.		
	Rural and village districts.	City districts.	Total.
Totals	225	96	321
Alcona			
Alger			
Allegan	11		11
Alpena			
Antrim	1		1
Arenac			
Baraga			
Barry	5		5
Bay	2	3	5
Benzie	1		1
Berrien	3	2	5
Branch		1	1
Calhoun	4	2	6
Cass	1		1
Charlevoix	3		3
Cheboygan	4	2	6
Chippewa	2	1	3
Clare	3		3
Clinton			
Crawford	1		1
Delta			
Dickinson			
Eaton	4	2	6
Emmet			
Genesee	3	2	5
Gladwin	2		2
Gogebic		1	1
Grand Traverse	5		5
Gratiot	1		1
Hillsdale	2	2	4
Houghton	8	1	9
Huron	4		4
Ingham	2	9	11
Ionia	3		3
Iosco			
Iron			
Isabella	2		2
Jackson		4	4
Kalamazoo	1	3	4
Kalkaska	2		2
Kent	12	14	26
Keweenaw			
Lake			
Lapeer			
Leelanau	3		3
Lenawee	12	1	13
Livingston	3		3
Luce	1		1
Mackinac	1		1
Macomb	2	2	4
Manistee	3	1	4
Marquette		1	1
Mason	1		1
Mecosta	3		3
Menominee	3	1	4

TABLE XXX.—*Concluded.*

Counties.	Number of children blind or with defective vision.		
	Rural and village districts.	City districts.	Total.
Midland	3	.....	3
Missaukee	2	.....	2
Monroe	3	2	5
Montcalm	7	1	8
Montmorency	.....	.....	.....
Muskegon	1	1	2
Newaygo	5	.....	5
Oakland	3	.....	3
Oceana	10	.....	10
Ogemaw	3	.....	3
Ontonagon	1	.....	1
Osceola	1	.....	1
Oscoda	.....	.....	.....
Otsego	3	.....	3
Ottawa	6	1	7
Presque Isle	.....	.....	.....
Roscommon	.....	.....	.....
Saginaw	5	5	10
St. Clair	11	2	13
St. Joseph	1	1	2
Sanilac	8	1	9
Schoolcraft	.....	1	1
Shiawassee	6	.....	6
Tuscola	6	.....	6
Van Buren	2	.....	2
Washtenaw	6	2	8
Wayne	4	22	26
Wexford	4	2	6

TABLE XXXI.

Special report of the Rural High Schools for the school year 1909-1910.

Location.	County.	Date of organization.	Number of teachers.	Amount paid teachers.	Number enrolled.		Whole number of volumes in library.
					Male.	Female.	
Totals	.....	.....	2	$1,170 00	20	24	15
Mundy township	Genesee	1906	1	$540 00	10	12	15
Excelsior township	Kalkaska	1907	1	630 00	10	12	.....

TABLE XXXII.

Financial statistics of Rural High Schools for the school year 1909-1910.

Location.	County.	Annual cost per student.	Estimated value of equipment.	Annual appropriation by township.	Income from other sources.	Current expenses for the year.	Estimated expenses for the ensuing year.	Estimated value of buildings.
Totals		$38 00	$780 00	$180 00		$1,607 60	$1,700 00	$400 00
Mundy township	Genesee		$200 00	$100 00		$769 30	$800 00	$400 00
Excelsior township	Kalkaska	$38 00	580 00	80 00		838 30	900 00	

TABLE XXXIII.

Special report of the County Agricultural Schools for the school year 1909-1910.

Location.	County.	Date of organization.	Number of teachers.	Amount paid teachers.	Number enrolled.		Number of graduates for current year.	Whole number of volumes in library.
					Male.	Female.		
Totals			4	$4,460 00	18	38	9	339
Menominee	Menominee	1907	4	$4,460 00	18	38	9	339

TABLE XXXIV.

Financial statistics of the County Agricultural Schools for the school year 1909-1910.

Location.	County.	Annual cost to student.	Estimated value of equipment.	Annual appropriation by township.	Current expenses for the year.	Estimated expenses for the ensuing year.	Estimated value of buildings.
Totals		$125 12	$4,231 02	$5,277 59	$7,007 56	$8,000 00	$36,292 60
Menominee	Menominee	$125 12	$4,231 02	$5,277 59	$7,007 56	$8,000 00	$36,292 60

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